

Clinical Lectures

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BY THOMAS HARRIS, M.D. LOND., M.R.C.P.,

SENIOR ASSISTANT PHYSICIAN TO THE INFIRMARY, PHYSICIAN TO THE
MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF
THE THROAT, AND SENIOR DEMONSTRATOR OF
PATHOLOGY IN THE OWENS COLLEGE.

(Concluded from page 1102.)

CASES of early phthisis differ remarkably in regard to the presence and the character of the adventitious sounds. The number and character of the adventitious sounds vary not only in different cases, but in the same case at different times. One of the facts which has impressed me most in taking notes on the early stage of phthisis and in watching the progress of such cases, has been the great variation in the adventitious sounds from time to time. At one examination we may be unable to find any adventitious sounds, whilst a week or a fortnight later such signs may be very evident, and then they may again disappear for a variable period. This variation may in part depend upon the presence or absence of simple catarrhal (non-tubercular) pneumonia round the part which is actually the seat of some tubercular change. The amount of such simple catarrh not only varies in different cases, but varies also in the same case at different times. Probably many of the adventitious sounds in cases of phthisis depend more upon such simple catarrh than upon the true tubercular process.

Another point in reference to the adventitious sounds of the early stage of phthisis is the part over which they are audible. Most commonly they are audible over one or other apex, in front or behind, and the limitation of certain adventitious sounds to that part is of great significance. The presence of fine crepitations, creaking sounds, or of a sibilant or sonorous rhonchus at one apex only is very suggestive of early phthisis. But I would lay great stress upon the frequency with which adventitious sounds in the early stage of phthisis are met with over the lower part of the lungs. Adventitious sounds in such cases are often only audible over the lower part of the chest behind, whilst over the apex none are to be found. I show you here a case of a man with phthisis, but where the only adventitious sounds audible are heard over the left axillary and infra-axillary regions. Until I had examined those regions I was in considerable doubt as to the diagnosis of the case. I also well remember a case of phthisis where the only physical sign ever detected by repeated examinations by several physicians was a friction sound audible near the inferior angle of one scapula. That case was proved, however, to be one of phthisis by the detection of tubercle bacilli in the expectoration. These facts are of importance as showing you how necessary it is to make a careful examination of all parts of the chest in cases of suspected phthisis. We must never confine our attention to the apices alone, although the physical signs in phthisis are more frequently best marked there than elsewhere. In doubtful cases of phthisis a most complete examination of all parts of the chest must be made. Probably the most common variety of adventitious sound in the early stage of phthisis is fine crepitation, which is most frequently heard over the extreme apex of one side. This crepitation is not very unlike that heard in the early stage of acute croupous pneumonia, but to the experienced ear there is a difference between the sound as heard in these two conditions; it is a difference, however, which is difficult to define in words. The crepitation in the early stage of phthisis has been said to more closely resemble the crumpling of paper than is the case of that audible in acute pneumonia. It has, however, never appeared to me that the simile is a good one. You must hear and compare the two kinds of crepitation to be able to understand and appreciate the difference. These crepitations are sometimes best heard over the supra-clavicular region, in other cases over the upper part of the interscapular or over the supra-spinous region of one side.

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If there is one region more than another, which deserves your special attention when auscultating the chest in suspected cases of phthisis, I think it is the uppermost part of the interscapular region. Creaks are another variety of adventitious sound not uncommonly heard in early cases of phthisis. Such creaks are usually audible at the end of inspiration over the apex of one lung. In recognising these sounds you must be careful not to mistake some creaks which are not of pulmonary origin, and which are frequently heard over the supra-clavicular regions. Great care is always required when we auscultate those regions, since I think of all regions the supra-clavicular is the one where we hear signs that are not of pulmonary origin, and which are apt to mislead. A sibilant or sonorous rhonchus may be the only adventitious sound audible over a tubercular apex. Its importance and significance depend upon whether it is heard only over the apex or elsewhere over the lungs. In the former case it is of great significance, in the latter it is to be regarded as only indicative of bronchitis, which may or may not be associated with tuberculosis of some part of the lung.

The above different varieties of adventitious sounds, crepitations, creaks and rhonchi may be audible on quiet respiration, but they are usually most distinct with a deep inspiration, and often most marked when the patient coughs. Occasionally the adventitious sounds are only audible when the patient coughs. Such limitation is very rare, but I am able to show you here a case, which is one of undoubted early phthisis of the right apex, where the crepitations are very numerous on the patient coughing, but none at all are audible during quiet respiration.

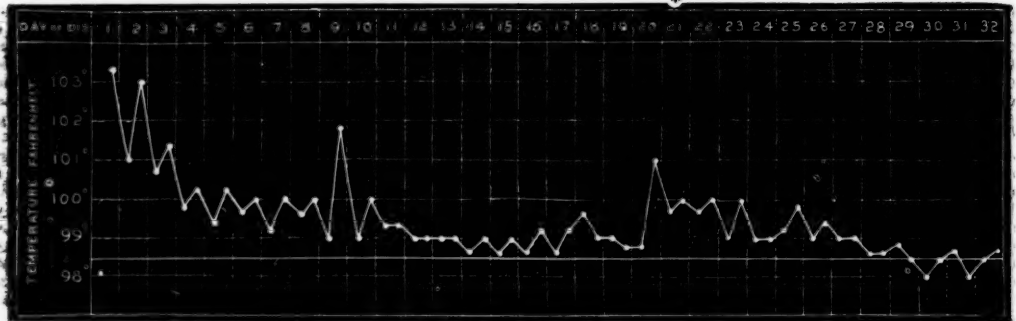
This is a convenient time for me to refer to the adventitious sounds, which are only heard during the early period of an examination of the chest. You have been doubtless taught in the class on medical physical diagnosis that even in healthy individuals we may hear, during the first few deep inspirations, especially over the bases of the lungs behind, a few fine crepitations (termed pulmonary pseudo-rhonchi) which disappear after a few deep inspirations have been taken. And stress has been rightly laid on the insignificance and unimportance of such sounds. I would, however, call your attention to the fact that adventitious sounds may be heard over a tubercular apex only during the first few respirations, the sounds then disappearing and not being audible again until after the patient has rested awhile and resumed the more shallow manner of breathing. After such a rest they may become again audible when a deep inspiration is taken. I have occasionally been troubled when wishing to demonstrate to others the presence of fine crepitations in a case, by finding that the sounds were no longer present, and yet I had been perfectly certain of their presence a short time before. At the present time I have two patients in the Hospital for Consumption who illustrate this fact very clearly. In both cases, which are ones of early phthisis, we can hear fine crepitations over one apex during the first few deep inspirations which the patients are directed to make. The sounds, however, gradually become less marked, and finally disappear. Then if the patients are allowed to sit down for a few minutes and breathe in their usual manner the sounds are found to be again present when deep inspirations are taken, and they again disappear as before. Hence it appears probable that, even over diseased parts, the adventitious sounds may be audible only at the early period of an examination, for I am not aware that any sounds having the characters described in the above two cases have been recorded as being present in persons who show no other indications of pulmonary disease. If the alveoli around a patch of tuberculosis in the lung contain only a small amount of secretion, it is quite conceivable that adventitious sounds arising from the full expansion of those alveoli might be only audible at the commencement of an examination.

Another adventitious sound, occasionally heard in the early stage of phthisis, is pleuritic friction. Your attention has doubtless been directed in the pathological department to the usual occurrence of pleuritic adhesions in cases of phthisis. Such adhesions are almost invariably found on the post-mortem table in all cases of phthisis. They are most marked, as a rule, over the apex, where they are most extensive and of older date, but they are usually also found to a greater or less degree over the lower parts of the lung. These adhesions represent antecedent pleurisy. In

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some cases of early phthisis the signs of pleurisy are those which attract most attention, and the physical signs of the pleurisy may be the only ones present, no signs directly due to the primary disease, the tuberculosis of the lung, being evident. Consequently it is of the highest importance in all cases of pleurisy, and especially in those cases occurring in young adults, to satisfy ourselves that we have to do with a primary pleural affection, and not with a case of pleurisy, which is secondary to a more serious lesion of tuberculosis of some part of the lung. The pleurisy in cases of early phthisis may be attended by considerable liquid effusion, but that is not usual. Most frequently it is dry pleurisy which results in the formation of adhesions. The friction sounds of this dry pleurisy may be an important indication of early phthisis. They may be audible over the upper parts of the lung, or, even in an early case of phthisis, they may be limited to the base. The occurrence of signs of dry pleurisy over the lower part of the lungs is by no means unfrequent in early cases of phthisis. It is an interesting pathological question as to what is the exact cause of such a pleurisy. It is not probable that wherever we have signs of dry pleurisy that immediately beneath that part is a patch of tuberculosis in the lung; or, what amounts to the same thing, all the pleuritic adhesions found over the lower parts of the lungs in cases of phthisis are not due to tuberculosis in the lung immediately subjacent to them. Some such adhesions are doubtless caused by direct extension of the tuberculosis of the lung to the overlying pleura, exactly as takes place in the apex of the lung, and forms there the old tough adhesions. But probably the majority of the adhesions over

ture, it being raised in the evening to a variable degree, whilst in the morning the temperature is often not above normal. The height to which the temperature attains in these chronic cases varies, but the rise is usually not nearly so marked as in the acute cases. In other chronic cases no rise of temperature is found to exist during a considerable period of the disease; and in other cases we meet with a rise of temperature in the evening during a few days or weeks, and afterwards the temperature may be found to be normal for a long period. It is certain that we meet with many cases of chronic phthisis where for long periods no rise of temperature, even in an evening, is noticed. In some of these cases it is probable that if the temperature had been taken at different periods in the afternoon and evening, it would have been found raised at some time. But in many of the cases it is probable that actually no rise of temperature does take place. It will be thus evident that as the temperature varies so much in different cases of early phthisis, it cannot be always of assistance to us in diagnosis. There are, however, some cases where the temperature is a very valuable indication. Such cases are those where an irregular temperature of the type mentioned above persists for several weeks, and where we have only doubtful signs of phthisis, and at the same time no other cause exists, which will account for the rise of temperature. The character of the temperature was valuable as an aid in diagnosis in a case which recently came under my observation. The case was for some time a very obscure one. It was an illness beginning acutely with a few symptoms pointing to the lungs as probably the cause of the illness.



* Tubercle bacilli found on this day in the expectoration.

the lower parts of phthisical lungs represent an antecedent pleurisy which has spread from some other part of the pleura beneath which a phthisical change has been in progress for some time before the pleurisy developed. It will be thus seen that because we get a friction sound over the base of the lung in a case of phthisis, it does not follow that we have to do with a case of primary basal phthisis, or even with a tuberculosis of the part immediately beneath the inflamed pleura. Pleuritic friction sound is, then, to be regarded as another adventitious sound which may be audible in an early case of phthisis.

Another auscultatory sign, which is sometimes of value to us, is the better conduction of the heart sounds towards the apex of the right lung than towards the left. The heart sounds may be much better heard over the right than the left apex in cases of consolidation of the uppermost part of the right lung.

Vocal resonance varies so much that is of very little practical value in the diagnosis of the early stage of phthisis.

The temperature in the early stage of phthisis varies considerably. In the acute cases and in the chronic ones which have begun acutely there is a considerable rise of temperature. The type of the temperature varies, but usually there is a marked evening rise and a morning remission. The temperature in the morning is in some cases normal or subnormal, whilst in other cases it is slightly raised even at that period of the day. It is, however, in the chronic cases which have begun insidiously, or where the acute stage has passed, that the greatest variation in the type of the temperature chart is seen. In some of these cases we have an irregular tempera-

During the first three weeks of the illness no abnormal physical signs could be detected, although the chest was repeatedly and carefully examined. The character and duration of the temperature, as seen on the accompanying chart, rendered it very improbable that we had to do with a simple non-tubercular pneumonia of the croupous or of the catarrhal variety. A study of the temperature made it difficult to escape from the conclusion that if it were a pulmonary lesion which was producing the symptoms, that the lesion was a tubercular one. Subsequent events proved conclusively that the case was one of early phthisis.

Since the discovery of the tubercle bacillus by Koch, the diagnosis of phthisis has been rendered far more certain in many cases than it could have been before that discovery was made. The discovery of tubercle bacilli in an expectoration which has come from the lungs is conclusive proof that a focus of tubercular disease exists at some part of one or both those organs, and that a communication has been established between such a focus and the interior of a bronchial tube. The bacilli may be found in cases of phthisis where, from the absence of definite physical signs, a positive diagnosis would have otherwise been impossible. It is the occurrence of tubercle bacilli in sputum, expectorated from a case where there are few or no physical signs pointing to phthisis, which makes the examination of the sputum for these organisms of such great value. It is to be remembered that whilst the finding of tubercle bacilli in the sputum is of such significance, the failure to find them is only of value if the sputum has been examined a large number of times by a competent observer. Before we are able to say that a pulmonary affection is not of a

tubercular nature simply from the failure to discover the specific bacilli in the expectoration, the sputum must be repeatedly carefully examined. We have recently met with several cases which show the importance of repeated examinations of the sputum in doubtful cases. I show you here a man who presents all the signs of true fibroid phthisis so far as the physical examination of the chest is concerned. The expectoration was examined seven times for tubercle bacilli and none were found, but on the eighth specimen being examined a few undoubted bacilli were discovered. As there was no indication that the case had changed from a non-tubercular to one of the tubercular variety, it is probable that the man is suffering from very chronic tubercular phthisis and not from the true fibroid form of consumption. The case of a man who died a few weeks ago, under the care of Dr. Dreschfeld, also shows the importance of repeated examinations of the sputum, and how easy it is for them to escape detection in some instances. The man was apparently suffering from acute tubercular phthisis, but in his sputum no tubercle bacilli could be found even after repeated examinations. After the man's death it was found that the lungs were studded with miliary tubercles, which were exceptionally closely packed together; at one part of one lung were three very small cavities, the size of peas, and these cavities were the only representatives of softened tubercle. It is probable that a few tubercle bacilli, derived from these cavities, were present in the expectoration, but they were like a needle in a truss of hay, and escaped detection among the large quantity of secretion derived simply from the accompanying bronchitis. Hence we must examine an expectoration repeatedly and carefully before we are able to exclude phthisis from the diagnosis of a doubtful case.

Unfortunately it is not always possible to obtain sputum for examination from an early case of phthisis. In many cases of phthisis the expectoration ceases for a time, without there being other evidence that the disease has become perfectly quiescent.

ABSTRACT OF

The Harveian Lectures

ON THE

SURGERY OF THE KIDNEYS.

Delivered before the Harveian Society of London,

By J. KNOWSLEY THORNTON, M.C.,
SURGEON TO THE SAMARITAN FREE HOSPITAL.

LECTURE II.

MR. PRESIDENT AND GENTLEMEN,—Simple cysts of the kidney usually grow from some part of the cortex, and arise from some obstruction causing dilatation of the tubules or Malpighian capsules; they contain a pale, non-urinous, but albuminous fluid, often loaded with cholesterin, and occasionally with blood; they are only harmful from the pressure and distorting influence they exert on the secreting structure, and from interference with the ureter. They occasionally open into one of the calyces. The differential diagnosis of simple cyst, from hydronephrosis, may be very difficult, but the persistence and gradual increase in size, without alternate increase and decrease, will generally be observed in the simple cyst, or if it does communicate with one of the calyces, and occasionally empty itself through the ureter, the sudden admixture of a quantity of albuminous fluid with the urine should excite suspicion as to the true nature of the cyst. The differentiation of simple cyst of the kidney from simple perinephric cysts is probably impossible without exploration, and it may even with exploration be very difficult to make out the exact relation of the cyst to the kidney in the living subject. Fortunately this is not of surgical consequence, as the treatment of all these simple cysts is identical.

The conglomerate form of simple cyst may cause great enlargement of the kidney; the cysts are separate from one another, very numerous, and lined with epithelium; they do not communicate with the secreting structure of the

kidney, and only affect the pelvis and calyces by pressing and dragging them out of shape. Both kidneys are usually affected, and the disease is commonly congenital, but unilateral disease is occasionally met with, so that the surgeon cannot altogether ignore the disease. Similar conditions affect the liver, the spleen, and the thyroid. In diagnosis I should attach importance to the very peculiar vibration communicated to the hand on percussion, due, I imagine, to the partial and frequent check to the fluctuation wave, by the numerous thin septa separating the small cysts. If the other kidney can be made out to be similarly diseased, the diagnosis is pretty clear.

Hydatids of the kidney are not uncommon, but they are not nearly so common as those of the liver; they rarely attain a great size, because the daughter cysts usually escape down the ureter, causing in their passage colic, which may easily be mistaken for that of calculus. They also cause hæmorrhage and blocking of the ureter and urethra. Their diagnosis can only be difficult in the comparatively rare cases in which none are passed in the urine. I shall refer to their treatment when I describe nephrotomy and its uses.

Under the terms scrofulous and tubercular kidney we have to consider two conditions which, though both tubercular in origin, are in their clinical history and results, as seen by the surgeon and pathologist, very different. That form of miliary tuberculosis which is occasionally primary and unilateral appears to be a rare condition. Newman, in his excellent lectures, merely admits its possible occurrence, but I have seen the condition in three cases in the living subject, and in one I had a much later opportunity of examining the kidneys after the death of the patient. A consideration of these cases has led me to conclude that there is a primary renal tuberculosis, which may attack only one organ, and which does not necessarily pass on to the chronic or scrofulous variety, with which we are all so familiar. The presence of tubercle in a single organ presupposes a lowered vitality affecting especially this organ or a part of it, and Newman has noted that in acute tuberculosis the area supplied by a single branch of the renal artery may alone be affected. Is it not possible, then, that there are cases in which the lining membrane of the pelvis of the kidney, a part specially exposed to irritations likely to produce pathological change, may be primarily and for a time solely attacked? Bearing in mind the result of incision and drainage in some cases of peritoneal tubercle, a similar treatment may be able in this instance also to arrest the disease whilst still local. I have met with a case which shows that we may have a primary acute tuberculosis limited at the beginning to one kidney and going on to a fatal termination by extension to the other kidney and suppression of urine, without ulceration and caseous deposit—never becoming, in fact, the well-known scrofulous kidney. Early incision and drainage, though it may arrest the disease in its local form, will not bring about a cure in all cases, for in some the other kidney will become infected and death will result from uræmia, the disease not necessarily passing into the chronic or so-called scrofulous form.

In the scrofulous kidney the primary focus is in or near the papillæ, and from thence it spreads to the adjacent kidney substance, forming a caseous mass which breaks down and leaves an ulcer. Several centres, some in the papillæ and some in the renal parenchyma, following this course, coalesce to form a large cavity communicating with the renal pelvis and destroying most of the kidney substance, the ureter often becoming blocked, so that a pyonephrosis is formed. As to its etiology, the specific virus is probably in the system, and then some accident, such as exposure to cold and damp, determines the weakening of vitality in the part attacked. The symptoms are unfortunately not very marked in the early stages; kidney-ache, with albumen and traces of blood in the urine, are usually the earliest. Later the urine becomes alkaline, contains pus, then triple phosphates, and débris of the renal tissues, and is putrid. Later still, swelling of the affected kidney is discovered, colic alternates with discharges of pus through the bladder, and suppression of urine, with fatal uræmia, may supervene. The diagnosis is certain if tubercle bacilli can be detected in the urine. I regard catheterisation of the ureters with suspicion, as being very likely to damage the healthy ureter, and by so lowering its vitality encourage the disease to invade it. The endoscope may be a safer instrument, but it can only be useful to decide whether one or both kidneys are affected; it does not help

us as to the pus being tubercular or calculous. The differential diagnosis of tubercle and calculus is in some cases very difficult. In favour of tubercle are the evening rise of temperature, more irregular and more constant hæmorrhage often coming on when the patient is at rest, and more constant discharge of pus. Micturition is frequent, and, when the bladder becomes infected, is often terribly painful. In cases in which it is advisable to employ puncture, never, under any circumstances, use for the purpose that surgical abomination, a grooved needle, for it will allow infiltration or infection of all the tissue through which it brings the fluid. Always use a thoroughly aseptic trocar and cannula, and a trustworthy aspirator, which will not admit air as the fluid is withdrawn; or use a simple trocar and cannula, with full Listerian precautions, not forgetting the now too often discarded spray. And whatever instrument you use, be careful, in withdrawing it, as in withdrawing a catheter from the bladder, to bring out with it all the fluid it contains, and not to leave a portion of this in the tissues through which the cannula passes after leaving the kidney. I would especially warn you also never to tap a suspected renal tumour through the anterior abdominal parietes—i.e., through the peritoneum.

I am one of the few who remain faithful to the spray, after even Lister himself has abandoned its use. I am prepared to give good reasons for my belief in its efficacy, and I can guard against any dangers that may result from it, so that they become practically inert and bear no comparison to the dangers of mere "cleanly surgery." The spray keeps a moist antiseptic atmosphere over everything, and thus renders the use of sponges much more efficient in thorough and rapid cleansing of the wound and its surroundings than is possible if the same parts are dry, and the germs of infection are delivered over to the tissues weakened by being soaked in a strong antiseptic, which, though perhaps not killing them, renders them a much easier prey to the active leucocytes.

In advocating any of the following surgical procedures for the relief or cure of renal disease, I do it only on the distinct understanding that they are to be performed with every protection that antiseptics can give. Puncture of the kidney may be useful to clear up a doubtful diagnosis, as to an enlargement of the organ being solid or in part fluid; may be curative in simple serous cyst or in hydronephrosis; at any rate, it may be tried in some cases before performing any more serious operation. In renal and circumrenal abscess it may be a useful preliminary to free incision and drainage, but the latter procedure should follow immediately, when the exact situation of the pus is made certain by the result of puncture. I do not think it is ever justifiable to puncture in hydatid disease, but it is urgently indicated in calculous suppression of urine. Puncture, if performed in pyonephrosis, is almost certain to allow escape of pus into the adipose areolar capsule and into the other tissues around the kidney, and the perinephric suppuration thus started, whether simple or tubercular, adds greatly to the risk of any future curative operation. Careful percussion in each case is the only safe guide for the selection of the exact point of puncture. Aspiration may be used as a means of temporary relief when distension is causing great pain, and it is impossible to perform immediately a curative operation. It is also useful in the course of the operation for complete removal of the kidney, to avoid rupture and fouling of the wound during the subsequent enucleation; but the puncture is very difficult to close effectually, and in most cases it is far easier to enucleate the kidney when tense and full than when relaxed by withdrawal of its fluid contents. In introducing a needle or trocar, take care not to transfix the organ, to keep the point well away from the hilum, and on withdrawal cover the site of puncture with a small dry antiseptic dressing. When the kidney is to be incised for the evacuation of fluid or for digital exploration of its interior and for subsequent drainage, there can be no two opinions as to the lumbar incision being the only one at all justifiable. The semi-prone position over a pillow, though widening the interval between the last rib and the ileum, has obvious disadvantages in the future steps of the operation, and for simple exploratory incision I have always found that I could work quite well with the patient laid flat on his back, with the side to be operated upon projecting well over the edge of the table. I prefer an oblique three-inch incision through the skin and deeper tissues, and I like to open the kidney through the pelvic wall, because such an incision heals well, and hæmorrhage from the kidney

substance may be troublesome. Incisions into the kidney must be more liable to damage the organ for future use, though it may sometimes be necessary in order to obtain a cure. The finger should then examine the interior, and this should be followed by flushing out with warm antiseptic solution, one or more rubber drainage-tubes being introduced into the loin tissues and up to the kidney, but not into its interior, and the wound closed around the tube or tubes with interrupted sutures, which should embrace all the divided loin tissues and the adipose areolar capsule. A large absorbent antiseptic dressing should be applied and changed at least once in every twelve hours. This is one of the cases in which the use of the spray is not necessary. Nephrotomy is safer and much more sure than puncture for the cure of simple cysts. It is, when aided by after-drainage, the only proper treatment for hydatids, for abscess, whether in the substance of the kidney or in the surrounding tissues, and it is often urgently indicated in calculous suppression of urine. It may be tried in hydronephrosis, and may be used for the extraction of a calculus. In pyonephrosis I would restrict it to the simple form resulting from injury, and to primary tubercular pyonephrosis when it can be diagnosed sufficiently early. I object to the lumbar incision and drainage in the more advanced cases of calculous and tubercular pyonephrosis, especially to this proceeding when used as a preliminary to nephrectomy, because, without offering any compensatory advantage, it leads to prolonged and exhausting suppuration, to infection of the loin tissues with the pus from the kidney, and to adhesions and fistula, which make a future nephrectomy much more difficult and dangerous. The suppuration which frequently follows a nephrotomy in these cases cannot but weaken and injure the patient, and tend to produce amyloid disease in the opposite kidney. The diminution of the size of the vessels, said to occur, is a matter of no consequence in these days of aseptic ligature and forcipressure. The diminution in the size of the kidney is of equally little consequence, for this can be rapidly produced during nephrectomy by the use of the aspirator. The advantage of the less friability of the kidney and of the tolerance of surrounding parts is dearly bought by the presence of a permanent fistula, and by the replacing of soft and easily divided adhesions by dense cicatricial tissue, not to mention the extensive formation of adhesions in the track of the lumbar operation, which would have had no existence but for that operation. This fistulous track is certain to be putrid after prolonged external suppuration; for if putridity is not present, the sinus is pretty certain to heal; but this cannot happen in the presence of multiple or branched calculi, or of caseous masses in the deep recesses of the kidney. It is quite possible to enucleate a pyonephrosis entire, and without fouling of the wound, before there is a sinus, but quite impossible after there is one. I am glad to see that Morris has come over to my views on this subject, the only point now in dispute between us being the important one of lumbar or abdominal incision. The only cases in which we can, in my opinion, gain any advantage by preliminary incision are those in which the suppuration has already broken through the kidney wall and become diffused into the tissues around. This is not a preliminary nephrotomy, but the mere application of ordinary surgical rules, to a diffuse suppuration outside the kidney. I think I might have gained something in two of my fatal nephrectomies had I adopted this procedure. I doubt if it would have saved the life of either, but I think it very probable that it would have demonstrated the unfitness of the other kidney to bear any extra strain in the last case, and would have thus saved abdominal nephrectomy from the reproach of one fatal case. The result of nephrectomy in one case where much ground had been lost by previous nephrotomy and drainage, and the results of immediate nephrectomy in seventeen other cases of chronic suppuration (calculous or tubercular pyonephrosis), the pus being confined to the interior of the kidney, prove absolutely the advantages that can be obtained by this method. Only two out of the seventeen died—one from injury to the vena cava, and one from hemiplegia (the result of the anæsthetic), the suppuration in the kidney having nothing to do with the death in either case.

Before leaving the operations of puncture and of lumbar nephrotomy let me briefly summarise the results of my experience. I would restrict the use of puncture as follows:—
1. To decide in doubtful cases between solid and fluid tumours of the kidney. 2. To relieve painful distension when nephrotomy for some special reason is not at once

advisable or possible. 3. To remove urine, or serum, or pus from a very large tumour, to reduce its bulk during the performance of nephrectomy. 4. As a tentative attempt at cure in some cases of simple cyst or of hydronephrosis, though the chance of cure is, I think, very slight. 5. To localise the position of renal or circumrenal abscess, when the physical signs are not clear enough for free incision. In such cases to be immediately followed by free incision when the pus is found. 6. To gain time, and relieve the harmful tension in some cases of calculous suppression. I would restrict the use of nephrotomy—1. To cases of calculous suppression, in which incision seems preferable to mere puncture, with the chance of being also able to remove the stone—i.e., if further experience shows that this is a safer and better operation than my combined method. 2. For the cure, by subsequent drainage, of simple cysts, abscesses, and hydatis. The question of possible cure in some cases of hydronephrosis to be further tested. 3. For the cure, by subsequent drainage, of traumatic pyonephrosis or pyelitis, and in the early stages of tubercular suppuration. 4. For the possible cure of more advanced calculous or tubercular suppurations, when the patient will not submit to nephrectomy. 5. For the performance of nephrolithotomy in some cases, if extended experience shows that this procedure possesses any advantages over the combined method, or when those who have no experience in abdominal surgery are compelled to operate.

THE TREATMENT OF SOME FORMS OF
CHRONIC SUPPURATING KIDNEYS BY
PERINEAL PUNCTURE AND
DRAINAGE.

By REGINALD HARRISON, F.R.C.S.,
SURGEON TO ST. PETER'S HOSPITAL.

IN connexion with cases of obstructive urethral disorders in adult and elderly males, instances frequently occur where the backward pressure of the urine leads not only to dilatation of the ureters and kidneys but to extensive suppurations of these parts. In a certain proportion of these the removal of the obstruction in the urethra by systematic dilatation or otherwise is followed by a gradual improvement in the condition of the parts above the constriction, and the complete disorganisation of the kidneys is thus averted. In others, on the other hand, the dilated and suppurative condition of the kidneys is so far advanced that, though the calibre of the urethra may be artificially restored to its normal size, pus continues to be poured into the urine tract from above in considerable quantities. It is now some years since my attention was first directed to this class of cases where death occurred in the course of time, not because surgery had failed to dilate the stricture, or to provide against the obstruction caused by a large prostate, but by reason of the kidneys being gradually converted into chronic abscesses, and the ureters into suppurating sinuses. It seemed to me that by a more dependent and continuous process of drainage than any form of catheterism could provide, it would be possible at very little risk to save what remained sound of the secreting structure of the kidney, and thus to prolong life and materially add to the comfort of patients so circumstanced. The misery that persons endure who are voiding several ounces of pus daily from their kidneys in getting rid of the dregs which thus accumulate in their bladders is often very great. The surgery of the kidneys has not done much to remedy those chronic forms of nephritis where the suppuration proceeds from both organs, as we see in advanced cases of prostatic obstruction, urethral stricture, and in certain varieties of suppuration associated with renal tuberculosis. In some unilateral suppurations of the kidney, nephrotomy has proved of great value, as I have illustrated in a previous communication,¹ but such a proceeding is clearly not applicable to those instances where both organs are similarly involved. A case that has been under my observation for some years was that of a gentleman thirty-

four years of age, who came to me early in 1884 with a stricture of considerable standing, the result of gonorrhoea. His urine contained a large amount of pus. I regarded the case as one of suppuration from the parts above the stricture, and concluded that, by careful attention to the latter, with washing out the bladder, improvement would gradually follow. In the course of a few months' treatment, he so far improved as to be able to go abroad again, with the understanding that he was to continue the use of a full-sized bougie. In 1886 he returned to me with all his symptoms much aggravated. His stricture had been neglected, and consequent on this the urine became largely charged with pus. At times there was some hæmaturia, and the urine contained much mucus, and shreds of what proved to be broken-down kidney tissue. The specific gravity of the urine varied between 1010 and 1017; it was usually acid, and of average quantity. It was tolerably evident, therefore, that though the kidneys were the chief source of suppuration they were neither irrevocably nor completely damaged. Every care was paid to the urethra again, and the bladder was injected in various ways, but without any good so far as the pus, hæmaturia, or irritability was concerned. This determined me to drain the suppurating parts, and accordingly in 1888 I punctured the perineum and put a large drainage-tube into the bladder. He was drained in bed for six weeks with great advantage, the pus in the urine diminishing in quantity and the symptoms of hectic subsiding. Then he got up and learnt to draw off his urine and pus by the perineal opening, through which he also used to wash out the bladder. In the course of six months the urine became clear, and the perineal wound slowly closed. I should add that when I opened the perineum I explored the bladder with my finger and found it healthy, and there could be no doubt from our experience with the drainage-tubes in this instance, that the whole of the pus was derived from the kidneys. The patient has again gone abroad to a trying climate, and I have since heard that he is in excellent health.

I have now operated in about ten cases of what I take to be chronic suppurative pyelitis, involving both kidneys, cases where, had only one organ been involved, I might perhaps have reached it from the corresponding loin. I have also seen several others in the course of my practice where perineal cystotomy had been performed by other surgeons, presumably for exploration of the bladder or for chronic cystitis, where the perineal wound had failed to heal. These, I believe, were for the most part instances of suppurating kidneys. And I base this conclusion not only upon the general symptoms presented in each instance, but from an observation which I have frequently made in my own cases to the effect that when drainage has rendered the urine normal and free from pus, it is almost impossible to prevent a properly made perineal wound closing on the drainage-tube being withdrawn, whereas when the urine remains loaded with pus, as we have in suppurating kidneys, it is absolutely impossible to bring about repair, and a permanent fistula results. It is now some years since I opened the bladder from the perineum and put in a drainage-tube in a case where the urine was largely charged with pus; but I was not able to discover the source of the suppuration. The patient was much relieved, though many ounces of pus were daily evacuated in this manner. After passing from my observation the tube was removed, and attempts were made to close the perineal opening. These, I learnt, were not successful, and it was necessary to return to the use of the drainage-tube. Eventually the patient died of exhaustion, when it was found that a psoas abscess had opened into a ureter. Though this circumstance was not discovered until after death, the means that were adopted, by providing an easy mode of escape for the pus, not only prolonged the life of the patient, but added materially to his comfort.

It will not be necessary for me to bring forward in detail further illustrations of perineal drainage in the case of suppurating kidneys. There are, however, two or three points which I may thus summarise in reference to what I have observed.

1. That in the larger number of cases of simple suppurating pyelitis caused by obstruction below, the pus gradually and completely disappears as the resistance to the urine is removed. This is exemplified in the ordinary treatment of urethral stricture by dilatation or otherwise.

2. That some advanced forms of chronic double suppurative pyelitis from obstruction below, where the suppuration continues to be excessive after the obstruction has been

¹ Liverpool Medico-Chirurgical Journal, Jan. 1889.

relieved or removed, are best treated by an opening in the perineum where the drainage is free and dependent, and irrigation can be conveniently employed.

3. That perineal puncture, as I have elsewhere described it,² best meets the requirements of these cases, and may be said to be free from risk.

Such an operation entails no prolonged confinement in bed. I have had patients upon whom perineal puncture has been practised for urine drainage up and about within ten days of the performance of the operation by the use of a very simple contrivance. It consists of a soft rubber drainage-tube for retention in the bladder by a T-bandage, to which is attached a continuation-tube fitted with a stopcock, the end being retained by a belt round the patient's waist. When the patient desires to empty the bladder, he has nothing to do but to turn the stopcock and let down the tubing either between his legs or into a suitable

For use at the time of operation and whilst the patient remains in bed, I have been recently employing the ebonite drainage-tubes recommended by Dr. F. S. Watson of Boston, U.S.A.⁴ They are provided with a movable collar by which they can be accurately adapted to the depth of the perineum, and are made in different sizes and lengths. They will be found very cleanly and unirritating.

The results of this method of treatment, so far as the kidneys are concerned, are almost entirely dependent upon the conditions present. Where the kidneys are little else than suppurating sacs with but a small amount of secreting tissue left, I have known persons go on for many months with great comfort, discharging their pus through a well-fitted drainage-tube instead of through the urethra. I have now a patient who is quite comfortable so long as he wears his tube arrangement, but as soon as it is withdrawn he gets uneasy, the urine becomes offensive and he has high temperature from



receptacle. I first applied this method of draining the bladder, whilst the patient was allowed to go about, in a case I recorded,³ where the bladder was punctured through the prostate. The tube was worn for six weeks, and the patient, although eighty-six years of age, made a complete recovery, the prostate so shrinking in size as to permit again of normal micturition. He lived for several years afterwards without any further necessity to use the catheter. Professor Annandale has since drawn my attention to a somewhat similar contrivance, which I understand he has found extremely useful, and which I am now using. If the perineal wound is made tolerably accurately, there need be no leakage by the side of the tube. Patients may in this way be going about for some weeks until the state of the bladder or the urine shows that drainage may be discontinued and the perineal wound allowed to close, which it usually does rapidly.

imperfect drainage. Others, again, use the perineal opening as a convenient way for passing in their catheter tube at intervals to draw off urine and pus and for washing out the bladder, if this is necessary. I am occasionally seeing a patient upon whom I thus operated nine months ago for suppurating kidneys, resulting from an old stricture, who, though an invalid, draws off a residuum of one or two ounces of purulent urine daily with far greater comfort than he previously voided it through his penis. Lastly, we have the satisfaction of meeting with instances such as the one I have more fully recorded where the drainage process is attended with complete success. Evidence is here afforded that even suppurating kidneys when not too far advanced may be made amenable to the application of the well-recognised surgical principles in the treatment of chronic suppurations—namely, a dependent opening and thorough drainage.

Lower Berkeley-street, W.

INVESTIGATIONS ON THE RELATION OF PUTREFACTIVE TO PARASITIC BACTERIA.

BY FERDINAND HUEPPE,

PROFESSOR OF HYGIENE IN THE UNIVERSITY OF PRAGUE,
AND

G. E. CARTWRIGHT WOOD, M.D., B.Sc.

By the discovery of Buchner and Pasteur that disease germs could lose their pathogenic power, and by the application of such less virulent organisms as vaccines by Pasteur, the experimental investigation of a series of the most difficult problems in biology was at length made possible. Up to quite recently the conceptions of saprophyte and parasite were everywhere regarded as irreconcilably opposed. Panum, Koch, and others, however, had shown that the non-infectious organisms, which act only through their poisonous products, form a link between the infectious organisms and the exclusively saprophytic. In addition, the investigation of the number of organisms and the quantity of poison introduced has exhibited so many intermediate phases that the most important distinction between parasite and saprophyte must now be given up.

The fact that the non-infectious organisms owe their action to the soluble products, and indeed essentially to the organic bases resulting from the splitting of the albuminoids, directs our attention more and more to

those physiologico-chemical studies, carried out specially from the chemical point of view by Brieger and Duclaux, and biologically by one of ourselves (Hueppe). It has been shown also that many infectious organisms, as well as the toxic, are able to split similar mostly basic poisons from the albumen; and this again indicates that the chief action of these organisms depends on the power of splitting the albuminoid molecule in a specific way. It is the faculty of dissociating the living albumen at the temperature of the body which characterises the pathogenic micro-organisms. But this power of splitting the living albumen does not separate the infectious from the simply toxic, nor yet these from the purely saprophytic organisms, since these are able from the dead albumen to produce similar or even the same poisons. That difference in nature which formerly obscured the conception—"pathogenic"—has already become for us in the case of many diseases a purely physiologico-chemical question of quantity.

The use as vaccines of the attenuated organisms against the virulent proves directly that the metabolic activities of the two are identical, and that the difference in their action depends on the relatively different quantities of a specific poison which they produce from the albumen. This is still more clearly shown in the immunity produced by chemical means, which must be regarded as an acquired tolerance of the specific poison. Thus the products of the microbe as occurring in the blood of an animal affected, or in cultures, can when previously introduced in the proper quantity, just as the vaccines, protect against the virulent organism. In addition, the completely attenuated cultures which appear to have lost all pathogenic power are able, as had been

² Lectures on the Surgical Disorders of the Urinary Organs, 3rd edit.

³ Brit. Med. Jour., Dec. 24th, 1881, and April 5th, 1882.

⁴ Operative Treatment of the Hypertrophied Prostate, 1888.

already noted in 1887,¹ to afford a certain protection. The results on which this statement rested had been obtained from experiments with fowl cholera. Quite recently Chauveau² has communicated the same for anthrax, and has used this, as he appeared to think, new fact to the strengthening of the already fully developed view of Hueppe—that the division between pathogenic and saprophytic organisms is a conventional and not a real one.

As Flügge has asserted, most cultures used as vaccines are really weakened, degenerated, cultures. This is, at any rate, true of our anthrax up to the present time; and Chauveau specially notes that this was the case with the organisms with which he worked. In spite of this, we must recognise that “a certain faculty, developed during the putrefaction of albumen, in saprophytes which have perhaps now ceased to exist, represents the origin of the higher virulence of disease germs.” The possibility of using as vaccines the apparently perfectly harmless cultures proves that the faculty of dissociating the albumen in a specific way with the production of toxins still remains—that is to say, is a specific characteristic, and, as such, absolutely unchangeable. But these organisms are as incapable of infecting or even rendering ill the most susceptible animals as the true saprophytes. From this point of view it does not matter whether the attenuated organisms are really degenerated or have become better adapted to the saprophytic mode of existence. For it has been observed that less virulent varieties may originate spontaneously from the virulent organism, and that these grow much more vigorously on our artificial media. This directs our attention once more to the splitting of the albumen by true saprophytes, in which we must seek, not only the phylogenetic source of the intoxication and infection, but also the chemical reason for the immunity as an acquired tolerance of the specific poison.

It was still, however, most desirable that proof should be furnished of the relation subsisting between true saprophytes and true parasites—that is to say, between species which had been up to the present found growing outside and such as occurred only in the bodies of affected animals. These organisms must naturally agree in their form, growth characteristics, and method of spore formation, so that we ought to recognise the parasite and saprophyte without any knowledge of their physiological action as specifically related. The proof of the identity of action of these, depending on the same specific, and only quantitatively different, power of dissociating the albumen, must then be demonstrated by experiment on animals, the sensitiveness of which to the virulent microbe and its vaccines is well known and capable of being controlled with certainty. The animal experiments with saprophytes give naturally a negative result so long as we work with the quantities and by the methods we are accustomed to use with infectious organisms. Here, however, guided by the views just enunciated, the preventive inoculation of animals offered itself as a not yet considered method of experimentation. In a similar way Kitt and Hueppe had already succeeded by positive experiments in proving physiologically genetic relations between the organisms of fowl cholera, rabbit septicæmia, and *Wildsüchse*, the microbes of which are morphologically indistinguishable.

The investigation was begun in July, 1888, and will when still further worked out be more fully communicated. We give at present here only a general view of the results of the first part of our investigation. We hope shortly in a second communication to report on experiments in which we have sought to render virulent our saprophytes by increasing their faculty of dissociating the albumen. Our investigations have, as we wish here specially to point out, nothing to do with the cultivation of one organism into another; on the contrary, they emphasise certain properties as specific and unchangeable.

We had repeatedly found in earth and water organisms which were apt to be taken for anthrax. It is probably to one of these microbes that Schutz³ refers when he says “but we are indeed aware that even the perfect agreement in mode of growth is not sufficient to establish the identity of two organisms. I need only remind you that we know of a bacillus, which by its appearance is not distinguishable from anthrax, which grows in gelatine exactly as this bacillus, and which is only distinguishable from it by its physiological properties, since it exerts no action on white

mice, which are, as is well known, extraordinarily susceptible to anthrax infection.” Whether they are identical with the organism described by Flügge as “bacillus mycoides” or earth bacillus, we must leave undecided. His description of the appearance on potato makes it more probable that they are different. It may well, however, be the case that under the term “earth bacilli,” as under “hay” and “potato” bacilli, we have a series of different organisms, which, while agreeing in most characters, are yet quite distinct. Our organisms are true endospore bacilli, which under similar conditions have almost the same form and size as anthrax, and under change in the conditions exhibit similar variations. The ends of the rods are, however, more sharply rounded off than we usually find with anthrax bacilli in the blood or tissues. But the former view that the shape of the bacillus is characteristic is true only for certain methods of preparation and staining. Under other conditions the anthrax bacillus appears also with its ends rounded off, as, for example, specially distinctly in its natural state in the “hanging drop.”

In gelatine plates our organisms give colonies showing the woolly mass of interwoven threads so characteristic of anthrax. In gelatine tubes the liquefaction is precisely similar to that of the pathogenic organism. On potato they form the same dry white coat as anthrax, and not, as Flügge's earth bacillus, “a slowly extending, whitish, slimy outgrowth.” In milk a rennet like separation of the caseine occurs, which afterwards passes again into solution by a process of peptonisation. In meat solution no membrane is formed on the surface of the fluid, but lower down a tangled mass of woolly threads is produced. All these characteristics are exhibited at the usual temperature and that of the blood more quickly than with true anthrax; nevertheless, the difference in favour of our saprophytes is more marked at the lower temperature. This is in sharp contrast to the attenuated cultures, where, indeed, all these growth characteristics are to be observed, but only in a much lower degree—that is to say, the Vaccine 1 (Pasteur) growing most slowly of all, the Vaccine 2 (Pasteur) occupying an intermediate place. Our organisms accordingly show all the characteristics of virulent anthrax as it occurs spontaneously, only they are much better adapted to vegetation outside the animal body. This is most clearly shown by the process of spore formation. Our organisms are able to form spores freely at the temperature of the room, while at blood temperature the process is interfered with, or may even entirely cease, although the organisms still grow rapidly.

If mice are inoculated with our earth and water bacilli in the usual way at the root of the tail, they remain apparently quite unaffected. We observed later that the infection with large quantities can sometimes, in the case of guinea-pigs, give rise to a local affection. Encouraged by a first and, as it later appeared, almost accidentally successful result, we proceeded systematically to inoculate our mice with the saprophytes and then infect with virulent anthrax. The results varied greatly according to the quantity of our saprophytes primarily introduced, and still more with the quantity of virulent material with which they were later infected. The action was also modified by the interval of time elapsing between the operations, the time being varied in our experiments from three to eighteen days. Some of the mice succumbed within the same time as our control animals,—twenty hours,—others in forty-eight hours. A certain number died after from eight to eleven days, and, as cultivations proved, from anthrax. But the cultures obtained from these animals did not kill mice, as the original anthrax culture, within twenty hours, but only in three days. The previous introduction of our saprophyte, which exerted apparently no action, had accordingly caused a distinct attenuation of the virulent organism to take place in the body of a mouse. A number of the mice resisted the anthrax completely, even when repeatedly inoculated, one being infected no less than seven times with the most virulent material without effect. This is the first time that anyone has succeeded in rendering mice immune. Even if this result were without importance in relation to the protection of our domestic animals, it shows, at any rate, a quite new way by which a perfectly harmless inoculation against anthrax can be carried out. The rendering of mice immune is certainly a much greater physiological feat than that of rendering sheep or oxen immune, when we consider the extraordinary susceptibility of the former to the disease.

¹ Hueppe, Ueber Beziehungen der Fäulnis zu den Infektionskrankheiten.

² Comptes Rendus, 1889, Nos. 7 and 8.

³ Arbeiten aus dem Gesundheitsamte, 1886, p. 304.

We hope accordingly shortly to extend our research also in this direction. On guinea-pigs, which, as far as we are aware, have not yet been able to be protected against virulent anthrax, our results were still more favourable. Not one died within the time of the control animals. Some died on the eighth day, and the cultures obtained from these were markedly attenuated. The others withstood not one but repeated infections with anthrax. Rabbits have only, up to the present, been able to acquire a certain degree of immunity by the method of Roux and Chamberland, which consists in the intravenous injection of Vaccine 1, and thereafter the subcutaneous use of Vaccine 2. Our method protected at once the greater number of rabbits. The death occurred in the less successful cases on the sixth day, and here also the cultures exhibited attenuation, so that in all cases a more or less successful result was to be recognised.

We have varied our procedure also in the following way: we have used Vaccine 1 and Vaccine 2 before infecting with the virulent organism. The results were not, however, sensibly improved, so that we have felt encouraged to apply our preventive inoculations with harmless saprophytes to our domestic animals, against wound, intestinal, and inhalation anthrax. If equally good results were obtained, the perfect freedom from risk and the limitation to a single inoculation would constitute a great practical advance. It suffices, however, to have proved that we can with specifically related saprophytes render even very susceptible animals immune against the most highly infectious organisms. This is, however, only possible when the way of dissociating the albumen is in both the same, which is, in other words, that the phylogenetic source of the infection lies in the saprophytism, that the pathogenic organisms have developed from saprophytes, rising gradually from the toxic microbe to the facultative parasite, from the facultative parasite to the obligatory. We must at present allow the question to lie open, whether the virulent anthrax has really developed, and can still originate from our saprophytes, or both have arisen from a common yet unknown original form.

The facts which we have just related permit of our understanding biologically an epidemiological experience which has up to the present been either regarded far too much from one point of view or explained by meaningless phrases. We refer to the generally attested fact that in regions where endemic diseases prevail the inhabitants enjoy a certain protection against such diseases. Up to the present epidemiologists have spoken in a general way of "disposition" in relation to such cases, or regarded it as due to a more or less severe attack which has passed unnoticed. As the parasites of such diseases as cholera and yellow fever have without doubt developed from the local saprophytic flora of the regions in which they occur, and as the cholera microbe has not even yet advanced from the simple facultative parasitic stage, we have no reason to doubt that the original less virulent organisms still exist in these endemic regions, and that the influence which such places exert on their inhabitants depends on the presence of such harmless organisms, which, without causing the disease, can yet confer a certain protection. In consideration of the experiments just described this conception loses all unnaturalness, and explains better than all former views the fact that in endemic regions the inhabitants enjoy a certain freedom from the disease, but that this immunity is lost when the direct relations to such regions have been for some time interrupted. The place "disposition" of epidemiological experience is accordingly perhaps no idle fancy, and may even now be biologically explicable.

FURTHER NOTES OF CASES OF TROPICAL LIVER ABSCESS.

By SURGEON-MAJOR W. F. STEVENSON, M.S.

SOME notes of mine on this complaint and on its treatment were published in THE LANCET of June 9th, 1888. Possibly a short record of further experience of a like kind may be deemed worthy of publication. All the cases were patients in the Kasanli Station Hospital during my tenure of office there in 1888.

CASE 1.—Private J. W—, East Surrey Regiment, age twenty-two years, service four years and a half, in India two

years and a half, was admitted on Aug. 20th. He had just arrived from Allahabad, and had got thoroughly wet on the march into Kasanli. On admission, he was suffering from severe diarrhoea, and complained of pain and tenderness over the liver and of a distressing cough; he was feverish and had a very foul tongue. The liver was tender on percussion, and slightly enlarged in both directions; the lungs were resonant all over, but some coarse bronchial râles could be heard. The abdomen generally was tender to the touch, and the man lay in bed with his thighs flexed; the diarrhoea was bilious. Large poultices were applied over the right side of the chest and abdomen, and chalk and opium given for the diarrhoea. By the next day (third of disease) the diarrhoea had ceased, but there was otherwise no change. Temperature 102.2° F.; pulse 100. The breathing appeared difficult, but the lung sounds were normal; respiration 32. On the fourth day he had great pain over the right lobe of the liver, and a little blood was passed by the bowel. Temperature 100.4°. On the fifth day the liver pain continued, and was accompanied by an equally severe one in the right iliac fossa; diarrhoea had returned. Temperature 100.6°. The poultices were continued, and half a grain of opium with three grains of ipecacuanha were given every four hours. On the sixth day the chest and abdomen were visibly enlarged on the right side, but the pain was less. The temperature on the previous evening had been 106°; pulse 120. There had been five stools during the night; the tongue was foul and dry. The pain continued less during the day, but the diarrhoea did not lessen, the motions being for the most part composed of blood. A long hypodermic syringe needle was passed into the right lobe of the liver in two situations, below the ribs in front and in the tenth interspace in the mid-axillary line, but no abscess was reached. In the evening the pains in the liver and over the cæcum were very severe, and a large quantity of blood-coloured matter, evidently the contents of a liver abscess, was being passed by the bowel, each stool containing large clots of pure blood. On the seventh day his condition remained unchanged. Temperature 100.6° and 102.8°. On the eighth day the blood and pus still passed from the bowel; the tongue was moist and the pain less. On the ninth day a very large quantity of blood was lost, and ergot was tried, but with no effect. During the day the pulse was very weak, and the man was somewhat collapsed, but this condition improved under the use of hot bottles and the administration of brandy. In the evening the temperature was 100°, and the pain was less. On the tenth day he was very weak, and all the symptoms continued. An attempt to reach the abscess with a small aspirating needle was made, but failed; he had eight motions during the previous day and night, in which there were large quantities of blood and pus. He was almost unconscious; pulse 124; temperature 100°. At 11 A.M. he seemed a little stronger, but the passage of blood and matter continued, and he died exhausted at 4.30 P.M. No jaundice was apparent at any time in the course of this case.—*Necropsy*: The lungs were healthy, except that there were some old pleural adhesions in both to the diaphragm as well as to the thoracic walls. The peritoneum was inflamed in the pelvic cavity. The omentum was much thickened and attached to the cæcum; both omentum and cæcum were gangrenous at the place of attachment, and a large perforation was found in the head of the cæcum, the contents of the intestine having escaped into the pelvic cavity. The mesenteric glands were much enlarged. The liver was enormously enlarged. An immense abscess cavity was found in the under surface of the posterior part of the right lobe, the contents of which were blood-clots, pus, and shreds of necrosed liver substance. This abscess communicated directly with the cæcum, and the contents of the large intestine were similar to that of the abscess. More matter from the liver had passed into the pelvic cavity through the perforation in the head of the cæcum above mentioned, and the matter passed at stool during life had been of a like nature. Besides the condition above referred to, there were several ulcers, varying in diameter from half an inch to an inch and a half in the ascending colon; the remainder of the large intestine was much congested, and there were several small ulcers along its course. Other organs healthy.

CASE 2.—Private T. M—, East Surrey Regiment, aged twenty-three years, five years' service, in India three years and a half, was admitted on June 4th for hepatitis. For some time previously he had suffered from pain over the liver and a general feeling of illness. On admission he was pale

and anæmic-looking; he had fever (99°) and severe pain over the hepatic region. The right lobe of the liver was enlarged downwards, and tender on pressure or percussion; tongue furred; bowels constipated. He had had dysentery in 1886. On June 5th it was noted that "there seems to be a slight bulging forwards below the ribs and a little to the right of the middle line"; no redness or œdema of skin at this spot. Temperature 100·8° in the evening. On June 10th the symptoms remained unchanged; temperature 99·4° and 100·6°; bowels open. On the ground of the probability of the existence of an abscess of the liver under the prominent point a hypodermic syringe needle was passed in, but no pus withdrawn. On June 13th the fever was less (under 99° morning and evening), but the liver dulness had much increased and the bulging part was more prominent. The hypodermic needle was again used, but nothing withdrawn except a little dark blood. For the next ten days his condition improved a good deal; pain and fever lessened, his appetite improved, and he rested better at night. On the evening of June 23rd his temperature was 102·4°, and he had diarrhœa for the first time; the general pain in the liver had returned with increased severity, and the prominent spot was very tender, but the skin over it was not œdematous. On the 25th no improvement had taken place; the needle was again inserted into the right lobe and a syringeful of pus removed. The fine needle of an aspirator was then passed into the liver in a direction upwards and backwards, from a point half an inch below the ribs and about two inches to the right of the middle line, and eight ounces of pus withdrawn. The puncture was closed with a patch of carbolised wool soaked with collodion. During the next fortnight his condition varied a good deal; the prominence was no longer visible; he had usually diarrhœa, and often passed blood and pus in small quantities (later on the cause of this latter sign was found to be a patch of ulceration just inside the anus); the temperature went down to normal and remained at that. On July 3rd the aspirator was again used and two ounces of pus removed. On July 10th the liver was again prominent and painful, and on the 11th chloroform was administered and a transverse incision about three inches long was made below the ribs and down to the surface of the liver; a good deal of bleeding occurred, and one vessel was tied with carbolised silk. A large trocar and cannula were passed in for about two inches before pus flowed, and one ounce escaped. The cannula was left in, iodoform dusted on the wound, and large thick pads of absorbent carbolised wool were bandaged over it. On the next day the sinus was further dilated by dressing forceps, and a large drainage-tube put in instead of the cannula. No rise of temperature occurred in consequence of the operation. From this time the man progressed slowly towards recovery; he took his food fairly well. Occasionally diarrhœa occurred, and he sometimes passed blood and pus in small quantities. At first it was suspected that a communication existed between the abscess and the intestine, as the man did not draw attention to any symptoms referable to the rectum; but afterwards he did so, and it was then found that the pus and blood passed at stool came from an ulcer about the size of a shilling close above the anus; this got well under treatment. The abscess cavity, which was daily syringed out with warm iodised water (one drachm of the tincture to eight ounces of water), slowly filled up, the tube being shortened as occasion required. His appetite improved, and he gained weight and improved in health generally. The drain was finally removed on Aug. 18th, and carbolised oil on lint applied. He had pain in the right shoulder for many weeks after all pain in the liver had ceased. No jaundice occurred. He was invalided to England in February of this year for change of air, but at that time he was apparently in good health.

CASE 3.—Gunner C. H.—, Royal Artillery, aged twenty-nine years, service six years (in India five years), was admitted on Oct. 3rd, 1888, for hepatitis. He had had a slight attack of dysentery in May, 1888, and his medical history sheet showed five entries for hepatitis and 132 days spent in hospital for that disease in the same year. On admission, the liver was found enlarged in both directions; it extended quite two inches below the ribs and liver, and dulness reached to about one inch below the nipple level. There was severe pain in the liver and right shoulder. Temperature 100°. Tongue furred; bowels not loose. By the tenth day no improvement had taken place. Temperature 102·4° in the evenings, and 99° in the mornings. On the twenty-second day the hepatic region was seen to be

distinctly enlarged. Temperature 99·8°. Bowels fairly regular; pain severe. A hypodermic needle was passed into the right lobe below the ribs, but no pus was withdrawn. On the twenty-seventh day there was no improvement. Pain over the liver in the axillary line severe and continuous; no diarrhœa, jaundice, or night sweats. Between this and the thirty-fourth day attempts to reach the pus were made on two occasions, but without success. Temperature 98·8° to 99·8°. On the thirty-fourth day the hypodermic needle was inserted in the tenth interspace behind the mid-axillary line and the pus withdrawn. The smallest needle of an aspirator was then passed in at the same situation and 41 oz. of pus, not containing shreds, removed. On the thirty-fifth day he felt easier. Temperature 102°; it had been 98·8° on the previous evening. On the thirty-sixth day chloroform was administered by Surgeon-Major McWalters, and an incision three inches long was made in the tenth interspace, a little behind the mid-axillary line, through the skin and intercostal muscles; one vessel required twisting. The liver was found firmly adherent to the abdominal walls, and was incised to the same extent, giving exit to at least 60 oz. of creamy pus. Two large drainage-tubes were put in, iodoform dusted on the wound, and large pads of borax wool bandaged on. He was very low and weak after the operation. The temperature that evening was 98·2°, it having been 103° on the previous evening. On the morning of the thirty-seventh day the temperature was 97·2° and the pulse 120. The discharge was very free, necessitating frequent changes of the dressings. On the thirty-eighth day he was doing fairly well, and was taking nourishment. Temperature 98·2°; pulse 120. The abscess cavity was washed out daily with warm iodised water by a syphon arrangement of tube, about a quart of the lotion being used from a vessel held about four feet above the bed. For the first six days after the operation he was in a very critical condition; he was depressed and nervous, and the pulse was rapid and thready, running from 130 to 144 per minute. On the forty-fourth day the pulse was 112 and of good volume; temperature 98° morning and evening; appetite good; bowels moved; stools very light in colour; no diarrhœa or jaundice; the discharge was slight and sweet. As it was found that the ribs had a tendency to come together as the cavity contracted, and so to interfere with the necessary drainage, a quarter-inch silver tube was put into the outer end of one of the rubber tubes to keep them apart. Air passed in and out of the cavity with a whistling noise during respiration, just as is seen in a case of empyema which has been operated on in a like manner. By the forty-ninth day the improvement in the man's general health and in the local condition was very marked. Temperature normal; pulse 88; appetite good; tongue clean and moist; bowels regular, the motions being darker in colour. By the fifty-sixth day the depth of the cavity was two inches and a half less than it had been. On the seventieth day the case-book note states that "the sinus has of late shortened but very little, if at all; both ribs at the situation of the drainage-tubes are very much thickened and apparently bent outwards, caused no doubt by the pressure on the silver tube." The tubes were shortened on the seventy-seventh day, and on the eighty-sixth day one was removed altogether, leaving in only the one containing the silver tube at its outer end. The man had gained three pounds and a half during the previous week. By the ninetieth day the sinus had shortened a good deal, the discharge was very slight, the motions were natural in colour, he looked well and strong, and was steadily gaining weight. He was invalided to England in February, 1889, and went home still wearing the silver tube. Many attempts to leave it out had been made, but only resulted in the closing of the outer end of the sinus, and it had to be replaced. The periostitis of the ribs had quite disappeared some time before he left for England.

CASE 4.—G. P.—, aged two years and a half, was admitted on Oct. 21st, 1888, with a history of chronic dysentery of about eighteen months' standing. He was then passing blood and mucus in small quantities, but frequently; his evening temperature was 101°; he was much emaciated, and coughed a good deal; both liver and spleen were enlarged. He was treated with small doses of compound ipecacuanha powder and fed on milk and beef-tea, and had much improved as regards the dysentery by the end of a week. On Sept. 2nd it was seen that the liver was prominent below the right ribs, and the liver

dulness was found to extend to the umbilicus; the prominent area was neither red nor oedematous. A hypodermic needle was passed into the right lobe and a large abscess tapped. On Sept. 3rd a vertical incision about one inch and a half long was made, commencing at the lower edge of the last rib and over the right lobe, and a large quantity of pus evacuated. Two drainage-tubes were put in and the wound dressed in the manner already mentioned. After the operation the discharge was very slight, but the child was already so weak and reduced that no recuperative power remained in him, and he died exhausted on Sept. 5th, about fifty-six hours after the operation. During the last two days the temperature ranged between 99° and 100·6°. No post-mortem could be obtained.

Remarks.—The first case showed in a marked manner the rapidity with which extensive suppuration followed on a severe hepatitis caused by wet and cold. The post-mortem appearances were very peculiar; the cæcum having become attached to the under surface of the liver abscess, the latter ruptured into the large intestine; then, presumably on the ninth day, judging from the patient's state of collapse at that time, perforation of the wall of the cæcum took place and the contents of the intestine, both feculent and purulent, escaped into the pelvic cavity. Looking at the condition of things revealed at the post-mortem, regret can hardly be entertained that the attempts to reach the abscess failed, for operative interference could not be expected to have been successful. In the second case a good deal of bleeding occurred, and at least one inch thickness of liver substance had to be cut through before pus flowed; yet the two peritoneal surfaces were firmly adherent. Hitherto I have been so fortunate as never to have found them otherwise in these cases. The third case was that of the largest liver abscess in which I have seen recovery take place. The cavity contained at least sixty ounces; but accurate measurement was impossible, because a good deal of the pus was lost in the sheets beneath the patient. The posterior wall of the abscess was seven inches from the skin at the site of incision. The pressure of the ribs on the silver tube caused some periostitis, but this soon disappeared. The difficulty in getting the sinus to close in this case brought forcibly to my mind the question of the advisability of the excision of an inch or so of the lower rib in future similar cases where the operation has to be done in an interspace. The last case was peculiar on account of the age of the patient—viz., two years. The antiseptic precautions taken in these cases were very simple: the site of the incision and for some distance around was well sponged with a 1 in 20 carbolic lotion, and a piece of lint soaked in the same solution was laid on the part for half an hour before the operation; the instruments were cleaned with and laid in a 1 in 20 lotion; care was especially paid to ensure that the needles were clean, and they were put into a 1 in 20 lotion some hours before use.

SPLENIC ENLARGEMENT AND HEART DILATATION IN FEVER IN INFANCY AND CHILDHOOD.

By ANGEL MONEY, M.D., F.R.C.P.

AN infant any time under the age of two years with fever above 100° F., signs of bronchitis and its intestinal equivalent, will often be found to have a palpable spleen. Problem: Since splenic enlargement is not a recorded sign of simple catarrh, either of the thorax or abdomen, on what is the swollen state of the spleen dependent? As the spleen passes away so do the other signs disappear, and the infant recovers its general health, and all its viscera bear no trace of disease. It cannot be said that rickets is the cause, or syphilis, or bad feeding; because, though these diseases or causes of disease may be silent and latent, and not reveal themselves, there is no sign or obtainable history of their ever having been in effective operation. What, then, is the cause of the splenic swelling? Of the facts I have no doubt, and I have no desire to make other people of my opinion. I simply assert positively, chiefly as the result of my experience at University College Hospital and the Hospital for Sick Children, that an infant not specially weak, and certainly not rachitic, syphilitic, or marasmic,

may develop a splenic enlargement at the same time that signs of catarrh appear in its bronchi and intestines. I cannot even say that there is anything specific in the nature of its catarrh; it seems to be an ordinary catarrh, having no great propensity to prolong its stay or to shorten its visit.

That some of the cases are instances of catarrh incited by the presence of the typhoid poison would probably be agreed to by Dr. Goodhart, whose views on true infantile typhoid fever, as expressed in his thoughtful book, are in accord with my own. I am always impressed—I may say weighed down—with the truth expressed thus: that the number of ways in which function and structure, or one or both, can respond to any change in the environment, is very limited. The tissues seem to lack variety of response, and may be regarded as rather stupid. The liver protoplasm, for example, can resent a pathological cause of disease only by increasing, diminishing, or perverting itself—i.e., its function and structure, and it is not at all improbable that even perversion of structure or function is but a mixture in varying order and degree of acceleration and diminution. Sometimes a tissue or function reacts to a pathological cause of disease by remaining within the limits of health. In fact, ambulatory typhoid fever affords an illustration of this doctrine. Now, in infants the limits of health are much more irregular and variable than in adults (of non-neurotic type), and the limits of the spleen are even within the limits of health much more irregular and variable. The spleen is a soft semi-fluid, semi-solid organ not overstocked with hard connective tissue in infancy, and expanding and contracting with surprising facility in harmony with changes in its near or distant environment, and the principal change is a digestive gastro-hepatic one, as all physiology proves. Seated on the splenic artery (which is rapidly becoming more and more tortuous as life proceeds—a sure sign of repeated splenic vascular engorgement), and a branch of the portal circulation, the spleen suffers, or tends to suffer, changes in harmony with the states of the general and portal circulation. I teach, and believe, that the spleen is as subject to variations in size as is the penis, the turbinate submucosæ, and the choroid plexuses. There cannot be the smallest particle of doubt that this convenient expanding tendency of the spleen is of utility in the circulatory needs of the economy. The spleen is not only a cavernous erectile tissue, but is blessed with much plain muscular tissue of great mobility and capable of being paralysed for a shorter or longer time. The typhoid poison or, more safely speaking, the typhoid process is of all acute febrile processes the one which can dilate the spleen or enlarge its size to the greatest extent. The heart is not so frequently dilated by typhoid processes as by scarlatinal and diphtheritic processes. That the heart is liable to dilate synchronously with the spleen is not often stated, but often occurs. In ague the portal viscera become overfull (including spleen), and the heart, after having been overacting, fails somewhat, and with it the blood-pressure falls. Now the problem to be solved is this: when the spleen swells, with signs of a febrile catarrh, is typhoid at work, or may the influenza cause or any other catarrh-causing cause dilate the spleen? I believe that temporary splenic tumefaction is in infants (under two) about as useful in the differential diagnosis of disease as is a temperature of 101°.

Harley-street, W.

ON A CASE OF HYSTERICAL AMBLYOPIA.

By JAMES MILNER, M.R.C.S.

THE above title given by Mr. C. S. Jeffresson to his cases described in THE LANCET of April 13th seems a suitable one. The cases were interesting, as showing to what degree the remarkable imitiveness of hysterical patients will simulate actual disease of the organs concerned. The following case may perhaps be considered worthy of publication.

E. R.—aged sixteen, a domestic servant, came to me on April 16th, accompanied by her sister, complaining of loss of vision. She was led into my consulting-room, walking with her head bent down as though dreading the light, her hands folded in front of her, and not hesitating to go wherever she was led. The history of the case was that on April 12th she noticed some slight dimness of vision in one

eye, and on the following day the other eye was similarly affected. On the morning of the 14th she woke up to find herself absolutely blind. Her mistress sent her home, and on the 16th, there being no improvement in her condition, her mother sent her to me. Upon my requesting her to open her eyes, she declared her inability to do so. As there was no photophobia, and the lids, although closed, were twitching spasmodically in a very suggestive manner, my suspicions as to the hysterical nature of the complaint were aroused, and were confirmed by my subsequent examination, which examination could only be effected by forcibly separating the eyelids, by means of a speculum. There was no lachrymation, otherwise, from the manner in which the lids were kept tenaciously closed, my first impression would have been that the case was one of corneal ulcer. I could find nothing whatever amiss with the eyes, and the pupils reacted readily to light, though the girl declared she saw nothing when a lighted wax vesta was suddenly brought within a couple of inches of her eyes, and she certainly did not flinch in the least. During the examination my patient's sister complained of feeling faint. I made her assume the recumbent posture at once, and straightway she had an epileptic seizure. Upon again turning my attention to A. R., I found her face turned towards her sister, though her eyes were still closed. The case—like most hysterical ones—seemed difficult to deal with. However, my first idea was to temporarily impair vision, so as to raise some actual cause for anxiety in my patient's mind. This I did by the instillation of atropine. At the same time blistering fluid was applied to the temples. On the 20th she was brought to me by her mother. She was in exactly the same condition as on her previous visit, excepting that the pupils were still dilated from the atropine. I now decided to try what electricity could do, feeling convinced that bodily pain and intimidation were the only means likely to be of any avail. A fairly strong faradaic current was applied, and I told her mother (in the girl's hearing) that this treatment was certain to restore sight sooner or later, and that it would be necessary to increase the strength of the current at each application. On April 24th the girl again appeared, and her mother said that her daughter's sight had partially returned, but that it was still necessary for the lids to be forcibly separated to enable her to see. The faradaic current was again applied, with the effect of causing the girl to raise the lids sufficiently far to be able to name one or two things on the table before her. This I pronounced to be satisfactory, but expressed my determination not to discontinue the treatment until perfect vision was restored. On the next occasion, three days later, there was no further improvement. I now spoke to the girl on the foolishness of her conduct, telling her that I was perfectly sure she could see did she wish to do so, and that it was in her power to shorten the painful treatment she was undergoing. Words seemed useless; so again having recourse to the battery I increased the strength of the current, until my patient declared she could no longer bear it. I observed the eyelids separate more and more, until suddenly, with a shriek, the girl opened her eyes widely, at the same time bursting into tears, and the case was at an end.

In this case there was no menstrual irregularity. The girl was quite comfortable in her situation, and had no desire to leave it. Some of the children of her mistress's family had been suffering from some ocular disturbance, for which they had been obliged to wear glasses, and this was the only cause I could find to account for my patient's attack of "false amaurosis."

Shipdham, Norfolk.

REMARKS ON A CASE OF
PERIPHERAL NEURITIS, CAUSED BY THE
INHALATION OF BISULPHIDE
OF CARBON.

By A. M. EDGE, M.D., B.Sc., M.R.C.P.,

PHYSICIAN TO THE SALFORD ROYAL HOSPITAL, AND TO THE MANCHESTER
SOUTHERN HOSPITAL.

ALTHOUGH it has long been known that workmen exposed to the fumes of bisulphide of carbon are liable to present symptoms resembling those produced by alcohol, it is only comparatively recently that cases have been described in which inhalation of this substance has caused a form of

paralysis corresponding to alcoholic paralysis. The case which I am about to narrate is a good example of this form of toxic paralysis.

The patient, a man thirty-two years of age, was admitted into the Salford Royal Hospital on March 3rd, 1888. For the greater part of his life he had worked in a coal mine; he had then been employed for three years in a foundry, and in April, 1887, he began to work in the "curing-room" of an indiarubber manufactory, where he was compelled to inhale fumes containing a large proportion of bisulphide of carbon, which is used in the vulcanising process. He had always enjoyed the best of health until the beginning of his present illness; he had been a total abstainer for sixteen years, and had never smoked or had syphilis. Soon after commencing work in the indiarubber factory he began to suffer from headache, giddiness, and drowsiness; the tongue was dry, and the taste of the bisulphide constantly present. He did not take much notice of this, as all the workmen were accustomed to suffer in the same way when first employed. These symptoms disappeared in the usual manner in the course of a few weeks. In the beginning of January, 1888, the headache returned and was accompanied by delirium and delusions of sight, and he was compelled by frequent attacks of giddiness to take to bed on the 10th. So-called "rheumatic" pains were then felt in the knees and ankles, and the face and hands became yellowish in colour. He was also subject to attacks of unconsciousness coming on suddenly and without cause while he was in bed. About the end of February the legs were noticed to be weak, and the lower halves of the legs felt numb. Sexual desire was abolished. On admission into the hospital the delirium and other cerebral symptoms had disappeared. The patient could neither walk nor stand without support, but on being well supported on each side, he was able with great effort to drag the toe of one foot about three inches in front of the other foot. As he lay in bed there was distinct drop-foot on both sides; he could barely move the toes, and could not perform dorsal flexion of the ankle. He was able to raise the heel from the bed slowly and with difficulty; the legs could be adducted forcibly, but abduction was weak. No wasting could be detected. The knee-jerks and the plantar and cremasteric reflexes could not be obtained, and there was no ankle clonus. Almost complete loss of sensation as regards touch, pain, and temperature existed below the middle of the leg. On squeezing the calf muscles some pain was complained of, not confined to the parts pressed on, but described as shooting upwards and downwards. The functions of the bladder and rectum were performed naturally. The upper extremities were perfectly normal in every respect. The faradaic contractility of the muscles of the legs was somewhat impaired; with the galvanic current the muscular contraction was normal, and contraction occurred with a weaker current on cathodal than on anodal closure. No vaso-motor or trophic disturbance was present. Taste and smell were normal, but the patient complained of weakness of vision, interfering somewhat with reading. His colour vision was unfortunately not tested until March 16th, when it was found perfect, and the range of vision (hand test) was found normal on both sides. (By this time, however, the defect of sight had almost disappeared.) The pupils reacted to light, and the discs were healthy. The only treatment adopted was rubbing and the internal administration of quinine. Improvement began to take place almost immediately. On the 16th it was noted that he could raise the heels from the bed with ease and could produce flexion of the ankles; abduction also was performed more easily. Some return of sensation was noticed in the left foot, where a smart prick was quickly felt, and the knee-jerks had returned to a slight extent. On the 23rd the anesthesia had entirely disappeared on the left side. He was able to walk with the help of an arm on each side. On the 29th he could walk unsupported; the knee-jerks were active on both sides, but the right leg and foot were still slightly anæsthetic. He was discharged on April 18th, walking well, although the left leg was slightly the stronger. He continued to show himself occasionally without any change being noted. On June 15th he presented himself after a stay at the seaside. He was then walking perfectly, both legs being quite strong, and no anesthesia could be detected anywhere. There was, however, no return of the cremasteric or plantar reflex. Sexual appetite had returned.

This patient was not seen again until Sept. 21st. He said that he had returned to the indiarubber factory, and

had found employment not in the "curing-room," but in a different part of the building, where he was occupied in boiling the rubber. He said he was not at all exposed to the noxious bisulphide vapour, and felt quite well. On examining him, I was somewhat surprised to find a considerable amount of anaesthesia involving the right foot and lower third of the leg. The cremasteric reflexes were still absent, but the knee-jerks were unusually active. On cross-questioning him, I discovered that when the wind was in a certain direction the fumes generated in the "curing-room" were blown into the room in which he worked.

There can be no doubt that this case was one of peripheral neuritis, due to the toxic influence of bisulphide of carbon. Fortunately, owing to the fact of the patient being a total abstainer, alcohol was excluded as an etiological factor. Two similar cases have been recently described by Dr. Ross,¹ and three cases had been previously described by Dr. Alexander Bruce,² in all of which the disease had been contracted in indiarubber works. A remarkable feature in the instance just narrated is that, notwithstanding the severity of the symptoms, recovery took place with great rapidity, as one was enabled to prognosticate from the electrical reactions of the muscles. A reasonable explanation of this rapidity may be deduced from Dr. Buzzard's theory of the pathology of this form of neuritis.³ He supposes that toxic multiple neuritis is due to an irritative influence produced by the poison upon the vaso-motor centres in the bulb and cord, causing a diminution in the supply of blood to the peripheral nerves, and leading, if long continued, to a degeneration of nerve fibres. On this hypothesis I think we must suppose that the irritation and consequent diminished supply of blood had lasted only long enough in this instance to produce a condition of lowered nutrition in the nerves without actual degeneration. Another noteworthy point is that the upper extremities were in no wise affected; in both of Dr. Ross's cases the extensors in the forearms were weak, and numbness and tingling of the hands were complained of; similar symptoms have been noticed in other instances.⁴ Sensory disturbances are usually found to a greater or less extent in cases of peripheral neuritis, except in ordinary cases of lead palsy, but the degree of anaesthesia in the lower limbs in my case was somewhat unusual.

It may perhaps be inferred from the anaesthesia found in the right leg when the patient was last seen that a previous attack of this form of toxic neuritis may predispose to a second attack on renewed exposure to even a very small dose of the poison.

Manchester.

A Mirror

OF

HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

UNIVERSITY COLLEGE HOSPITAL.

TWO CASES OF SARCOMA OF THE LOWER JAW.

(Under the care of Mr. CHRISTOPHER HEATH.)

IN May of last year we published a case of sarcoma of the upper jaw, which had been under the care of Mr. Heath, in which he had performed five operations for the removal of a myxo-sarcomatous tumour and for recurrences. There had been no return of the disease at a period of four years after the last operation. It is seldom that such a satisfactory result can be recorded, rapid recurrence being regarded as a sign of the more malignant growths. Proof of this is afforded by the course of the disease in the second case which we publish, one of round and oval-celled sarcoma. The disease was comparatively limited at first, but soon recurred, becoming of softer character and greater

extent, until it had spread far beyond possibility of removal. It is interesting to note the family history, one of great susceptibility to malignant growths, in this second case where the disease so rapidly recurred. Microscopically, the tumour in each was similar, but special mention is made of the vascularity of the second, whereas the first showed a tendency to ossification. Another point of interest is the absence of any enlargement of the lymphatic glands in the neighbourhood of the growths. For the following notes we are indebted to Mr. Raymond Johnson, surgical registrar.

CASE 1. *Central sarcoma; patient well and free from recurrence seven months after operation.*—B. S—, aged twenty years, was admitted on March 19th, 1889. A small red swelling had been noticed on the lower gum three months previously. It slowly enlarged and displaced the two incisor teeth on the right side. On admission a flat, firm growth of a bright-red colour projected from the front of the lower alveolus below the two incisor teeth of the right side. In a corresponding position the posterior surface of the alveolus was expanded. The central incisor tooth was raised and loosened. The patient's general condition was very good, and no glandular enlargement could be detected in the neck. On the day after admission the prominent part of the growth was removed with an elevator, and after extracting both central and the right lateral incisor teeth, a mass of soft pink growth was gouged from a cavity in the expanded jaw. The bleeding was easily arrested with Paquelin's cautery and the cavity plugged with iodoform wool. The growth consisted of oval and round cells lying in a finely fibrillated stroma, which here and there contained bony spicules; no multi-nucleated cells were seen. The wool plug was removed on the second day. On March 29th—nine days after the operation—it was noticed that a small mass of growth still remained in the posterior part of the cavity. This was therefore removed with an elevator, the first bicuspid tooth being at the same time extracted. The cavity rapidly healed, and had very considerably contracted when the patient was discharged eighteen days after the first operation. A fortnight later, owing to sprouting of unhealthy granulations, Mr. Heath thought it well to apply chloride of zinc paste. This was followed by somewhat troublesome hæmorrhage, but eventually the patient made a good recovery. At the end of October, 1889, there were no signs of recurrence, and the patient's health was reported perfect.

CASE 2. *Subperiosteal sarcoma; primary growth and three recurrences successively removed; death seven months after first operation.*—E. B—, a girl, aged fifteen years, was admitted on March 1st, 1889. Her mother died of "cancer of the breast"; a brother, aged sixteen years, died from a tumour of the leg, which recurred after operation; a sister, aged eleven months, was said to have died from "cancer of the leg." Three months before admission the patient suffered from neuralgic pain in the left cheek, and a few weeks later noticed a lump on the gum of the left side of the lower jaw, which slowly increased in size. On admission the outer surface of the lower jaw between the first bicuspid and second molar teeth of the left side was occupied by a slightly lobulated tumour of a bright-pink colour. It projected above the level of the teeth and caused a distinct external prominence of the cheek. The inner surface of the corresponding part of the jaw appeared to be slightly expanded. The patient's general condition was excellent, and no glandular enlargement could be detected in the neck. On March 6th the prominent part of the tumour was removed with a scalpel, and the deeper part gouged from a cavity in the outer portion of the bone. The growth was soft and pale pink in colour; it consisted of closely packed large round and oval cells, separated by a scanty fibrillated matrix; bloodvessels abundant and thin-walled. On March 15th the growth, which had begun to sprout up over the surface of the bone, was freely removed with a gouge. On March 29th a mass of growth as large as a filbert-nut was removed from the inner surface of the jaw, and Paquelin's cautery freely applied. She was discharged on April 7th, but recurrence rapidly took place, and when readmitted on April 23rd a lobulated soft mass had sprung up on the outer surface of the alveolus, and there was an extensive mass of growth in the floor of the mouth. On April 24th an incision three inches long was made beneath the body of the jaw, and, after reflecting the soft parts from the bone, the latter was divided with a saw in front of and behind the growth. The piece removed

¹ Medical Chronicle, June, 1887.

² Edin. Med. Journ., 1884.

³ On some Forms of Paralysis from Peripheral Neuritis, 1886.

⁴ Eloy, L'Union Médicale, Sept. 1886. Bruce, *loc. cit.*

measured one inch and a half in length. The extension of the growth into the floor of the mouth was freely removed with scissors and cautery; two diseased glands lying beneath the jaw were dissected out. The patient was discharged on May 10th; the wound had healed, and no recurrence could be detected. Within a week of her discharge it was noticed that the tumour was recurring in the floor of the mouth, and when readmitted on May 28th there was an extensive fungating mass of growth filling the whole gap left by the last operation. On May 29th an incision was made along the posterior border of the ramus and the lower border of the body of the jaw. The bone was sawn through the socket of the left central incisor, and again through the ramus, and the loose pieces, together with the mass of growth between them, were removed. The external wound healed rapidly, and the patient was discharged on June 11th. For a month no signs of recurrence were detected, but a fortnight later extensive growth filled the floor of the mouth and spread forwards into the cheek and downwards into the neck. She died on Oct. 1st, seven months after the first operation. When last seen, three weeks before death, an enormous lobulated mass hung beneath the jaw on to the chest, and extended upwards into both cheeks.

Remarks by Mr. HEATH.—The foregoing are good examples of the endosteal and periosteal varieties of sarcoma as affecting the lower jaw. Being both in the early stage of the disease, there was no difficulty in differentiating them; but in advanced cases of large tumour it is often impossible to be sure of the original starting point. The endosteal case was diagnosed as probably myeloid, which is the common form of sarcoma in this position, but proved to be a small-celled sarcoma, with oval cells in large quantity and an abundant matrix undergoing slight ossification. In the subperiosteal case, on the contrary, the cells were large and mostly round and the matrix scanty, with no ossification. There was also a strong family history of new growth.

SAMARITAN HOSPITAL FOR WOMEN, BELFAST.

THREE CASES OF OPERATION FOR ABDOMINAL TUMOURS; REMARKS.

(Under the care of Dr. W. K. M'MORDIE.)

THE following is an interesting series of three cases of laparotomy for tumours of the ovary. In the first of these the case is interesting on account of the mental effect of the operation—that of insanity; an effect which is fortunately of rare occurrence after ovariectomy (though several instances are on record)¹ or in any other operation. Dr. Savage,² in his paper on Insanity following the Use of Anesthetics in Operations, makes certain propositions. He says: "Any cause which will give rise to delirium may set up a more chronic form of mental disorder quite apart from any febrile disturbance. (a) The most common form of mental disorder is of the type of acute delirious mania; (b) though such a disorder is generally of a temporary character, it may pass into chronic weak-mindedness, or it may pass into (c) progressive dementia which cannot be distinguished from general paralysis of the insane." How far the administration of an anæsthetic predisposes to the occurrence of insanity it is difficult to say; severe mental disturbance has followed operations in which ether has been employed, as well as those in which chloroform was the agent used for the production of anæsthesia. Clevenger,³ who wrote on the subject of traumatic insanity, looking upon the symptoms produced as of a distinctive type, comes to this conclusion, amongst others, "that traumatism may act both as a predisposing and exciting cause, producing traumatic insanity by itself, but hereditary or other taint causes greater liability." It is important, in the investigation of these cases, to have on record the nature of the anæsthetic, the mode of administration, the quantity used, and the duration of the anæsthesia; also the predisposition or otherwise of the patient.

CASE 1. *Insanity following ovariectomy.*—J. L., married, aged fifty-three, was on Feb. 18th sent by Mr. Andrew M'Connell of Belfast to the Samaritan Hospital to have an

ovarian tumour removed. At the time of her admission she measured forty-seven inches round the umbilicus. She had for a considerable time before her admission suffered from chronic bronchitis, and no doubt this was a predisposing cause of the congestion of the lungs which set in a few days after the operation.

A large cyst with small pedicle, no adhesions, and containing a dark treacle-like fluid, was removed, the operation being completed without the slightest trouble. The patient progressed without a bad symptom to the sixth day, when, the wound having healed, the sutures were removed. So far as the operation was concerned she seemed perfectly recovered. On the day following the removal of the sutures mental disturbance appeared, and she became so violent that it was necessary to physically restrain her. Dr. M'Mordie had the advantage of Mr. M'Connell's long experience of mental affections, who pronounced it a typical case of insanity following an operation. Symptoms of congestion of the lungs appeared, but these cleared off, and the woman was removed by her friends on March 8th, no improvement having taken place in the mental disturbance.

In the second case the cyst was very adherent, and Dr. M'Mordie found it necessary to drain it. The use of the glass drainage-tube was found satisfactory, and is generally in use. Pozzi⁴ has strongly advocated Mikulicz's method of capillary drainage by means of iodoform gauze in cases similar to the one which we record, but this method has not met with general acceptance, most operators preferring the use of the glass or indiarubber drainage-tubes. Terrillon⁵ has passed a long rubber tube, in cases similar to this, from the abdominal wound through the floor of the pelvis and out by the vagina, the lower end being left free in the vagina, with iodoform gauze packed loosely around it. This method is very dangerous, however, from the hæmorrhage which may be induced by wound of one of the pelvic vessels.

CASE 2. *Large adherent cyst of the broad ligament treated by drainage; recovery.*—Mrs. H., aged forty, married, no family, was on May 29th sent by Mr. William Gordon, of Saintfield, county Down, as a private patient to the Samaritan Hospital to have an ovarian tumour removed. Assisted by Dr. Henry O'Neill and Dr. M'Kinney, Dr. M'Mordie made the usual incision, but could find no division between the abdominal wall and the cyst wall until he had cut into the cyst. A thin dark fluid flowed out. The opening into the cyst was enlarged sufficiently to admit the hand, and the cyst completely cleared out. The wall of the cyst was adherent to the abdominal wall on the right side and at the front. It was free towards the left. Inside the cyst towards the left side were three small cysts having very thick walls, and these were filled with a clear gelatinous fluid quite different from the fluid in the large cyst. The walls of these were freely cut away, care being taken not to open into the peritoneal cavity on the left side. The entire amount of fluid measured upwards of twenty quarts. The enormous cavity was freely washed out with a 1 per cent. solution of boracic acid. A glass tube was left in at the lower angle, and the cavity washed out twice daily. At the end of a week there was some sloughing from the smaller cysts and a very offensive smell with the discharge from the wound. This gradually disappeared, and the case made most satisfactory progress, the cavity gradually contracting until July 1st, when only fifteen ounces of fluid could be injected without returning by the side of the injecting pipe. The patient then returned home and placed herself under the care of her family physician, who continued the syringing until the cavity completely closed.

The third case, in which a tumour of the ovary developed, is of interest, as solid tumours of that organ are rare in proportion to the cystic growths. Small fibrous tumours are not, however, uncommon in the early stage of cystic disease.

CASE 3. *Rapidly growing fibro-cystic tumour of the right ovary; removal; recovery.*—L. G., aged nineteen, single, a dressmaker, was sent by Mr. William Calwell Graham on Sept. 27th to the Samaritan Hospital. Her menstrual periods were regular up to the middle of April, and since then that function had entirely disappeared. About five weeks previously to her admission Mr. Graham was called to see her, the girl having suddenly complained of severe pain in the right ovarian region. She then for the first time

¹ Barwell, *Transac. of Clin. Soc.*, vol. xviii.

² *Brit. Med. Jour.*, vol. ii, 1887, p. 1199.

³ *Alienist and Neurologist*, July, 1888; also *Sajous*, vol. ii, c. 21

⁴ *Revue de Chirurgie*, April 10th, 1883; *Sajous*, vol. ii, f. 24.

⁵ *Annales de Gynécologie et Obstet.*, February, 1888.

discovered an enlargement. Mr. Graham stated that this had rapidly increased from the time he first saw her up to the time of her admission as a hospital patient. The temperature varied from 99.6° in the morning to 101° in the evening. Pulse 120, weak and intermittent. The tumour felt solid, and was about the size of a pregnant uterus at full time. The diagnosis made was suppurating ovarian tumour. It turned out to be a fibro-cystic tumour of the right ovary, with very extensive adhesions to the abdominal wall at the right side and front. The omentum was pushed up above the tumour, and so puckered together that it was impossible to bring it down over the intestines. There was free bleeding from the broken-down adhesions, and it was necessary to keep in a drainage-tube for fifty-seven hours. The pulse immediately improved, and the temperature fell, the patient making an excellent recovery.

Remarks by Dr. M'ORDIE.—The above cases all present some features of special interest. The first case because of the sequel to what was otherwise a very simple and satisfactory case. The second case shows how an enormous sac may contract and become completely obliterated when strict antiseptic conditions are observed. Adherent cysts of the broad ligament are frequently found not to be satisfactory in their termination. My experience has been rather fortunate, this being the third case I have had of this description of tumour, and all have had a satisfactory termination. The third case is of interest from the high temperature and disordered pulse causing a difficulty in the diagnosis, and from the peculiar way in which the omentum was puckered, preventing it being brought down over the intestines.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Gummata of Pons Varolii.—Diffuse Lipoma.—Adenomata of Os Uteri in Monkeys.—Ruptured Mitral Valve.—Saccular Aneurysmal Dilatation of Veins.—Unusual Bladder Growths.

AN ordinary meeting of the Pathological Society was held on Dec. 3rd, the President, Dr. W. H. Dickinson, being in the chair.

Dr. ORMEROD read a case of Gummata of the Pons Varolii. The pons was cut into transverse slices, which showed numerous patches of disease, irregularly scattered through its substance. One of these occupied the position of the right sixth nucleus and its neighbourhood; it showed in the floor of the fourth ventricle as a distinct tumour in the place of the eminentia teres on that side. There was also noticed post mortem some general enlargement of the pons. Microscopically the tumours appeared to be gummata. The patient, who was under Dr. Gee, had left-sided numbness and motor paresis, followed by paralysis of the conjugate movements of the eyes to the right. Subsequently there was loss of all lateral movements of the eyes, paralysis of the lower face and of the muscles of articulation (simulating glosso-labio-pharyngeal palsy), general paralysis of the limbs, and deafness. There was no optic neuritis. He died twelve months from the onset. The points of interest were—(1) The absence of optic neuritis; (2) the correspondence of the early ocular symptoms with the lesion of the sixth nucleus; (3) the occurrence of gummata deep in the nerve substance, and their fatal issue in spite of antisyphilitic treatment.—Dr. DICKINSON said it was unusual to find gummata imbedded so deeply in the substance of the brain.—Dr. S. WEST inquired what evidence of syphilis there was other than this lesion.—Dr. ORMEROD, in reply, said that there was no other evidence of syphilis, and the patient denied a specific history.—The specimen was referred to the Morbid Growths Committee.

Mr. ROGER WILLIAMS showed a case of so-called Diffuse Lipoma or Pseudo-lipoma. The disease was at least as old as the habit of drinking large quantities of malt liquors and spirits, but Sir Benjamin Brodie first described it in 1846. The later literature of the subject was then referred to, and four new cases were related. The first occurred in a man aged forty, a carman, who was exhibited to the Society. He had enormous diffuse fatty swellings surrounding the whole of the neck, presenting pendulous masses in

front and behind. There were numerous pairs of fatty swellings down the whole length of the back on each side of the spine. Both loins, arms, elbows, forearms, and hands were similarly affected, as well as the lower part of the abdominal wall, both groins and the scrotum. The patient enjoyed good health, and the disease was of twelve years' duration. He had for many years indulged in beer and spirits. The other three cases were all adult males. In one the disease was similar, but of less extent, to that just described, and the patient was a barman, who was a great drinker of beer and spirits, and at his request the double chin was dissected away, with a good result. In the third case the swellings were at the back of the neck; and in the fourth at the lower part of the abdominal wall. He had collected and analysed thirty-one cases of this affection, and from these he concluded that prolonged indulgence in excessive quantities of alcohol was the chief factor in causing the disease in those predisposed to it, and that the condition was allied to excessive obesity rather than to any form of neoplasm. He then compared this affection with other diseases, remarking that undue accumulation of fat in the organism was either of hypertrophic or atrophic origin, and under the former he included obesity, diffuse lipoma, *pseudo-lipome sous-claviculaire* of Verneuil, sporadic cretinism, myxœdema, multiple lipomata, single acquired lipoma, and congenital lipoma. In the Boesjesmen enormous diffuse fatty masses were of normal occurrence in the gluteal and deltoid regions, especially in females; and other instances could be quoted showing that fat was normally distributed very unequally throughout the body, being collected in large masses in the physiological fat reservoirs. Analogous diseases were met with in the fibrous and osseous tissues—e.g., molluscum fibrosum and leontiasis ossea. In conclusion, he alluded to Broca's extraordinary cases of lipomatosis in which over 2000 fatty tumours were found.

Messrs. BLAND SUTTON and GORDON BRODIE made the following communication. For some time past they had been accumulating material for an investigation of cancer, especially in connexion with the uterus. It appeared that uterine cancer, though so very common in the human female, was rarely met with in other mammals, and was hardly known to veterinary surgeons. This induced them to commence the investigation by a study of the cervix uteri in monkeys, in order to ascertain if any anatomical conditions existed favouring the development of cancer in human females. A few years ago one of them exhibited before the Society a series of specimens demonstrating that monkeys (macaques and baboons) living in confinement in this country were liable to uterine flexions. Subsequently, evidence was given before the Gynaecological Society that macaques and baboons menstruated after the same fashion as women. The inquiry was followed up, and it was found that the menstrual period in these monkeys was very variable. In some it lasted a longer time than in others, whilst now and then a monkey appeared in an almost chronic state of menstruation. In many the menstrual period was followed by profuse leucorrhœa. Normally, the discharge of blood lasted from one to two days, but the redness of the less hairy parts persisted as long as a week. The average interval between each menstrual period was difficult to fix with accuracy, as it varied from a month to six weeks, or even longer; it was a safe inference, when a monkey menstruated two, three, or even four times a month, each attack lasting three or more days, followed by leucorrhœa, that the case was one of metrorrhagia. During the past summer a macaque was particularly watched; the metrorrhagia and leucorrhœa became so profuse as to render it unfit for exhibition, and, being of small money value, it was killed. The uterus was removed before the parts had lost their tissue life, and was found to be acutely retroflexed; the cervix enlarged, the os patulous, and a florid-looking mass projected from it, identical in appearance with what it was the fashion to call in gynecology an erosion. After hardening the parts sections were prepared for the microscope in such a way as to include the os externum, the cervical canal, and portio vaginalis. Under a low power the mass protruding from the os, as well as a polypoid mass some distance up the canal, resembled a cervical adenoma, and in structure identical with the glandular tissue held to be characteristic of erosions in women, the acini being apparently lined by columnar epithelium. Many of the most typical acini were filled with a singular apparently homogeneous material. Under higher powers and careful illumina-

nation the supposed columnar cells were seen to be club-shaped, and in favourable sections the supposed glandular crypts turned out to be rosettes fringed with the clubs so characteristic of actinomyces. The clubs varied somewhat in shape, many of them fringing the rosettes with the greatest regularity. In other places they occurred in "banana-like bunches," especially when stained with fuchsin. The clubs surrounding the rosettes stained with difficulty. In some places a cluster of clubs had been cut transversely; in such a characteristic mosaic was produced. They could not detect the filaments, but this was probably due to their lack of skill in staining methods, but a number of granular bodies presented themselves in various parts of the section. Thus far the microscopic characters were consonant with actinomyces. On examining the centre of the rosettes some distinctly rounded bodies caught the eye associated with clumps of epithelioid-looking cells; when these central bodies were critically examined they resolved into cysticerci, with the head and neck retracted. Whether their presence in the midst of the rosettes was accidental or otherwise would require further elucidation; as far as they had examined the sections, the cysticerci appeared to have some causative relation to the rosettes. Although they wished at first to limit this preliminary statement to facts connected with monkeys, they could not refrain from observing that they had detected so far as the rosettes and clubs were concerned exactly analogous conditions in erosions from the human cervix uteri, and in a case of cancer of the cervix. They further found that Dr. John Williams, in his Lectures on Cancer, had in Fig. 1, Plate xiv., depicted, as appearing under a high power, cancer cells, but they found these columnar cells identical with their clubs, and the peculiar clump of cells in the drawing was identical with those seen in the monkeys in association with the cysticerci. Again, in the beautiful plates in vol. xxxii. of the Transaction they found that Mr. Harrison Cripps had accurately delineated clubs and rosettes under the name of adenoid cancer of the rectum. Many of his exquisite drawings represented the microscopical characters of the lesions in their monkeys and in the erosions of women. They deemed it right to mention these things to show how wide a field was opened up, and thus incite the Society to help in their investigation by appointing a committee to carry it out.—Mr. BRODIE, in reply to Mr. D'Arcy Power, said the powers used were one-fourth and one-sixth inch objectives. In many places a layer of epithelioid cells insinuated itself between the adenomatous growth and the uterine wall. The appearances presented were found on the surface of the specimen, and might be parasitic, but no definite statement could yet be made as to their significance.—Mr. ROGER WILLIAMS inquired if the appearances were suggestive of cancer.—Mr. SUTTON, in reply, said the condition found was suggestive simply of erosion.—Dr. DICKINSON thanked the authors for their communication and referred to the council their proposal for a committee to investigate the subject.

Dr. HALE WHITE showed a specimen in which the Chordæ Tendinæ from the Aortic Cusp of the Mitral Valve had ruptured. The patient, a man aged nineteen, who had had rheumatic fever some years previously, was one day following his ordinary occupation when he was so suddenly taken with shortness of breath that he had to go home to bed. This dyspnoea increased until his admission to the hospital. He was then found to have an aortic to-and-fro murmur and a loud mitral systolic murmur. At the apex there was a well-marked systolic thrill, and the heart was considerably dilated. Digitalis always reduced the frequency of the pulse by a few beats for a quarter of an hour after administration, but it soon became as rapid as before the drug was given. The points of interest about the case were that the chordæ tendinæ ruptured suddenly in a man who was able to do his work, that there was a systolic thrill, and that digitalis was almost powerless.—Dr. DICKINSON quoted the case of a bricklayer, aged twenty-four, who, being apparently quite well, and while engaged in lifting bricks became suddenly collapsed, and was found on examination to have an extremely well-marked mitral murmur. The lesion was diagnosed as rupture of the chordæ tendinæ of both mitral valve cusps, and this opinion was confirmed at the necropsy.—Dr. S. WEST noticed a patch of erosion on the heart wall, due, he thought, to friction caused by the flapping of the loose valve segments.—Dr. HALE WHITE, in reply, said that the total duration of the case was nearly nine weeks.

Mr. GOLDING-BIRD showed a specimen of Aneurysmal

Saccular Swelling from the external jugular vein of a man aged twenty-seven. He had had it all his life, and had till lately been able to distend it on making an expiratory effort; he could also empty it temporarily on compression. When removed by operation it was found to be a saccular dilatation of one spot of the outer wall of the vein, about three inches below the jaw, and it contained recent non-laminated blood-clot. It was fully the size of a hen's egg. Two other apparently similar cases were referred to. In one, a venous saccular swelling was removed from the palm of the hand; in the other, a tumour of the neck existed, as in the first case, and with almost an identical history, but the patient, an old woman, declined operation. The tumour submitted to the meeting was contrasted with those pseudo-sacculations common in varicose veins, and which more or less involved both walls of the affected vessel; and some remarks were offered upon swellings of the neck capable of dilatation by the patient's own effort.—Mr. BENNETT said the first case was interesting on account of the size of the tumour. In ordinary cases the condition gave rise to no discomfort, and the patients paid no attention to it. He had seen several cases which, though not so large, had every other characteristic in common. He had found a case in a girl aged four in which there was a sac communicating with the internal jugular vein; it had grown with the child, but during the nine years he had watched it it had caused no inconvenience. In another case occurring in a man there was a tumour of the size of a pigeon's egg beside the internal jugular vein and communicating with it. Both on deep inspiration and holding the breath could succeed in filling the sac. These cases usually occurred about the neck, were commonly congenital, and in most of them some other evidence of congenital venous eccentricity could be found. They were rare about the lower extremity. He then showed a photograph of a sacculated tumour attached to the internal saphenous vein. These cases were sometimes of traumatic origin, and he had seen three cases, all occurring in the palm of the hand, and two of the patients were carpenters. One was thought to be a malignant blood-cyst, was operated on and the clot turned out, but no recurrence had taken place after removal. Usually these swellings caused no inconvenience, but clotting might take place and the clot might suppurate. One case which he dissected in the neighbourhood of the knee was found to communicate with the long saphenous vein. The vein from which the sacculæ sprang was not usually varicose. He thought it advisable to omit the term "aneurysmal," because these swellings were usually congenital malformations, whereas "aneurysm" was applied to a gradually produced pathological process.—Mr. GOLDING-BIRD, in reply, said that he used the word to convey an idea of the shape of the swelling rather than the cause of it.

Mr. HURRY FENWICK brought forward three specimens of Cancer of the Bladder, to illustrate three very unusual phases of that disease. The first one demonstrated the frightful rapidity which was sometimes exhibited by vesical carcinoma. The growth, which occupied the entire middle zone of the bladder, had been proved by means of the electric cystoscope to have grown in four weeks. The patient had been previously operated upon by the suprapubic method, and a single pedunculated carcinomatous growth had been completely removed. The second specimen, which was obtained by Dr. H. Davies from a diabetic patient who had been cystoscoped, showed a superficial invasion of the trigone only, the greater mass of the growth being on the outside. It was suggested that the growth had commenced in the mucous membrane of the bladder, had penetrated the external wall, and crept along the right ureter until its volume equalled the size of a fist. This circum-ureteral cancer was most rare; a similar specimen was No. 486 in the Westminster Museum. The third specimen was a good example of multiplication of cancer in the bladder by inoculation ("contact" carcinoma). Two isolated masses of growth had been found; one springing from the anterior wall, and embracing a smaller knot which arose from the posterior. Mr. Fenwick had introduced the subject of "contact" carcinoma at the Society the session before last, and submitted the specimen as an additional example of this class.

The following card specimens were shown:—

Dr. ORMEROD: Tubercular Disease of Pancreas.

Dr. HAWKINS: (1) Malignant Endocarditis; (2) Aortic Stenosis of Twenty-four Years' Duration.

Dr. HADDEN: Spontaneous Fracture of Gall-stones.

MEDICAL SOCIETY OF LONDON.

Electrolysis in Urethral Stricture.—Diagnosis of Ovarian Tumours from Uterine Fibroids.

AN ordinary meeting of this Society was held on Dec. 2nd, the President, Dr. Theodore Williams, being in the chair.

Mr. BRUCE CLARKE read a paper on Four Years' Experience of Electrolysis in Stricture of the Urethra. After stating that it was more than four years since he had first had his attention directed to this method of treatment, Mr. Bruce Clarke began by calling attention to the exact methods to be employed, and pointed out how extremely necessary it was that the surgeon should be master of his apparatus. Electricity was a dangerous remedy in unskilful hands. He went on to show that the process was not in reality a destructive one. It consisted in modifying and softening the cicatrices by which the strictures were produced, a fact which could be witnessed by anyone who would take the trouble to treat by this method a stricture of the urethral orifice. The necessity for employing a galvanometer and the variety of conditions to which electrolysis were applicable were next referred to as additional examples of the varied capacity of the electric current for good or evil. The instruments and method of using them were then explained, the instruments themselves being handed round for inspection. They were of three kinds—a stiff bougie, the same with a filiform bougie to screw at the end of it, and a third, tunnelled like a railroad catheter. He was in the habit of placing the patient on his back and putting under him a large pad connected with the positive pole of the battery; the negative pole was connected with the bougie, which was pressed against the stricture, and usually traversed it in from twenty to thirty minutes. He allowed three weeks to intervene between the sittings. If the urethra proved irritable the sittings were shortened. Some soreness followed, but this usually passed off after forty-eight hours. If at the first sitting the stricture took a No. 4, in a fortnight or three weeks a No. 8 or 9 would pass; in such a case treatment would begin again with a No. 10 bougie electrode. Mr. Bruce Clarke then pointed to the table of fifty cases, and proceeded to discuss certain other points in connexion with electrolysis. Some of the cases could not, he thought, be explained merely on the theory of absorption. He mentioned one case in which an ulcer was present where electrolysis produced a rapid cure. He cited instances to prove that just as it had been shown that a rectal stricture might begin by spasm of the muscular fibres, so urethral stricture could, and often did, begin in a similar fashion, an irritable ulcer being the starting point. The caustic alkali liberated by the negative pole of the battery cured the ulcer, and thus relieved the muscular spasm; whilst if it failed to cure the ulcer, it might in rare instances aggravate it, and so intensify the stricture. Some instances of this nature were related. Of the fifty cases twenty-three were known to be well after periods varying from one and a half to three years, and in two cases no relapse had taken place after four years, whilst only nine were known to have required subsequent treatment.—Mr. REGINALD HARRISON spoke with considerable hesitation, inasmuch as his experience of treatment by electrolysis had been small, and what he had seen of it had led him to form no high opinion of its merits. On the other hand, he had seen a large number of cases treated in this way, and in them the area of stricture tissue seemed to be considerably increased. There were thickening and condensation around the urethra, so that in many cases after one or two years there was much difficulty in the reintroduction of instruments. The patients, too, who had been treated in this way did not express unbounded confidence in the proceeding, and the results altogether had been such that to his mind it did not seem justifiable to extend the employment of this method. He himself preferred a gentle and easy process of dilatation, and had found a combination of this, with free irrigation of the urethra, to give very good results.—Mr. HURRY FENWICK said that four years ago he worked upon twenty picked cases of stricture of the urethra by electrolysis, and they were all worse for the treatment; two of them, indeed, developed troublesome traumatic strictures. He considered the method not without danger, for the electrode had been known to perforate into the rectum, to produce troublesome hæmorrhage, and at least to lead to a fatal issue in one case. Again, only certain classes of stric-

ture would react to this method; those of deep stricture with spasm, and he did not think that the cure could be looked upon as radical.—Mr. LOCKWOOD asked if the strictures anterior to the bulb were first treated by electrolysis before the deeper-seated one was dealt with. He thought that if all urethra were carefully examined by pathologists, the proportion of strictures at the bulb to the total number of cases would be found to be much smaller than was at present believed to be the case.—Dr. ROUTH asked if the positive or negative electrode was placed in the urethra. He had found that the negative electrode placed in the cavity of the uterus produced dilatation. So also a negative current would cause absorption of an inflammatory swelling. He was in the habit of ceasing after five minutes' application, and always diminished the current when he found that it caused pain.—Mr. BRUCE CLARKE, in reply, said that the treatment had not found favour in England. He thought that those cases which were worse after the application of electrolysis had been unskilfully operated on. Carelessness of itself was not a reason against the procedure. He thought that conclusions drawn from museum specimens were fallacious, for as a rule only the extreme instances were preserved, and these institutions always exhibited a deficiency of the minor degrees of disease. He thought it very important to determine how far ordinary urethral strictures commenced in spasm. He considered that many commenced as muscular contraction, the muscle later becoming converted into cicatricial tissue, as happened also in the rectum. Electrolysis, by diminishing muscular spasm, would kill such strictures in the early stage. He was in the habit of using a current of from five to ten milliamperes, with the negative pole in the urethra.

Dr. LEWERS then read a paper on "Some Points in the Diagnosis of certain Ovarian Tumours from Fibroid Tumours of the Uterus." It was more particularly the diagnosis of solid, or semi-solid, ovarian tumours that was considered in the paper. Dr. Lewers read notes of a case of ovarian tumour of this kind, and showed the specimen (a large tumour, about the size of the pregnant uterus at the eighth month). Before the patient came under his observation the tumour had been regarded as a uterine fibroid, and treated by electricity according to Apostoli's method, fortunately without puncture. Careful examination, however, convinced Dr. Lewers that the case was one of ovarian tumour. He accordingly operated in the usual way, and found that it was so. The patient made a good recovery. The points which seemed to be most important in making the diagnosis were: First, as regards the history—the fact that symptoms had only been present for eight or nine months, whereas so large a tumour, had it been a fibroid of the uterus, would probably have caused trouble for a much longer time. Second, as regards the physical signs, the absence of any marked degree of anæmia, although the patient gave a history of menorrhagia; the losses could not, therefore, have been very great, as they would almost certainly have been if this large tumour had been a soft fibroid of the uterus. Again, on vaginal examination the vaginal portion of the cervix projected in the usual way, not being displaced or deformed, as it so often was in cases of uterine fibroid. Tilting the vaginal portion of the cervix gave the impression that the uterus was not enlarged, and that there was no such close connexion between the uterus and the tumour as there would have been if this had been a uterine fibroid. Further, with the sound, which only passed three inches in the uterus, no alteration in its position seemed to be produced by an assistant raising the abdominal tumour as much as possible from the pelvis. Although the general characters of the tumour were those of a solid tumour, it had nevertheless a distinct softness and elasticity in parts. There was therefore a strong probability against the tumour being a sub-peritoneal fibroid, which was almost invariably typically hard. Dr. Lewers said that it was only by careful consideration of all these points that a correct diagnosis could be made in difficult cases. An ovarian tumour was usually to be regarded as having a malignant tendency in direct proportion to the amount of solid tissue entering into its composition. If ovarian tumours with this tendency were mistaken for uterine fibroids, valuable time would be lost, and it might very likely be too late to remove the tumour completely when the progress of the case had at length made the diagnosis clear.—Dr. ROUTH inquired if a murmur were present.—Dr. WILLIAM DUNCAN said that a soft

oedematous myoma might closely resemble an ovarian tumour. He had met with two cases in which the detection of a bruit by the stethoscope had enabled him to diagnose myoma. Recently he had removed a myoma of the broad ligament weighing fourteen pounds, and over it a loud uterine souffle was heard. He had never heard a uterine souffle over an ovarian tumour. He did not think it at all necessary that a uterine tumour should take a long time to grow.—Dr. BEDFORD FENWICK had seen a dozen cases during the last six months of large fibroid tumours without any symptoms being present, and in many instances the loss of blood from these cases was less than that proper to a normal menstruation.—Dr. LEWERS replied that he had heard a murmur like a uterine souffle over an ovarian tumour. Though the appearance of a large tumour in a short time did not exclude uterine growth, yet it favoured ovarian disease. There was no doubt also that the majority of fibroids, except the sub-peritoneal variety, were accompanied by a large loss of blood. Menorrhagia was certainly the usual thing with a large soft fibroid.

ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND.

THE annual general meeting of this Society was held on Wednesday, Nov. 27th, at 4.30 P.M., at the London Hospital, and was well attended.

The following gentlemen were elected to hold office during the ensuing year:—President: Dr. G. Murray Humphry. Vice-Presidents: Sir William Turner, Dr. Daniel John Cunningham, and Mr. George Dancer Thane. Treasurer: Mr. Charles Stewart. Secretaries: Drs. W. P. Herringham (England), H. St. John Brooks (Ireland), and John Yule Mackay (Scotland). Council: Drs. John T. Charles, John Curnow, John Cleland, David Hepburn, Alex. Macalister, A. M. Paterson, John Struthers, Johnson Symington, Bertram Windle, Arthur Thomson, and Alfred H. Young; Messrs. Wm. Anderson, J. N. C. Davies-Colley, Rickman J. Godlee, G. B. Howes, John Langton, Charles Barrett Lockwood, Thomas Pickering Pick, J. Bland Sutton, and Frederick Treves.

At the subsequent Council meeting the following were elected to form the Committee of Management:—Professor G. B. Howes, John Langton, William Anderson, Arthur Thomson, Bland Sutton, and C. B. Lockwood.

Dr. Shore and Dr. Lewis Jones showed a series of histological specimens in which the tubular structure of the vertebrate liver was traced up from the invertebrate tubular liver. These gentlemen maintained that the human liver was a tubular gland. Dr. Henry St. John Brooks showed models illustrating the Topography of the Abdomen, and Mr. J. J. Clarke a specimen in which the pulmonary artery had four valves. Professor Bertram Windle showed a large series which he maintained proved the three separated portions of the acromion, coracoid, and internal condyle were ununited epiphyses, and not fractures. The main evidence for this belief was that the separated parts were always symmetrical, and there was no callus but an intervening layer of cartilage. Mr. Poland spoke against this view, and maintained that the condition was due to fracture. Professor A. M. Paterson next showed a Cervical Spine which had been fractured through the neural arch of the axis by judicial suspension. Two papers upon the Brain were read, one by Dr. Beer of Vienna, and the other by Professor Cunningham. The last author dealt with the intraparietal fissure and fissure of Rolando. The first-named was described as being usually a T-shaped furrow, the top of the T being parallel to the fissure of Rolando, and sometimes opening into it. By rearrangement of the three limbs of the T any of the varieties of the intraparietal fissure could be formed. This paper gave rise to some discussion, and Mr. Lockwood showed a cast of a brain in which the fissure of Rolando was single above, and opened into the longitudinal fissure; further down it bifurcated and enclosed a convolution, and afterwards the two limbs opened separately into the fissure of Sylvius. This gentleman remarked that Professor Cunningham's paper only partially explained this strange anomaly, and said that it was becoming clearer that not only did the cerebral convolutions differ amongst themselves more than any structures in the body, but they also differed with regard to their relation to the skull. Professor Thane also made some

remarks, and Mr. Maskins raised the question of the great anastomotic vein, but there was an evident disposition to treat that vessel with scepticism. A paper by Professor Struthers was deferred until next meeting.

CLINICAL SOCIETY OF MANCHESTER.

TUESDAY, NOV. 19TH.

DR. RAILTON, PRESIDENT, IN THE CHAIR.

DR. BUCKLEY showed a case of Thyroidectomy for Cystic Bronchocele.

Rickets with unusual Deformity.—Dr. RAILTON showed a girl aged seven years and a half who, in addition to many of the customary deformities, had a remarkable bilateral flattening of the upper two-thirds of the shaft of each humerus, the anterior bicipital ridge projecting almost like a knife-edge beneath the skin. The affected portions were also curved, with the convexity forwards from above downwards, the posterior aspects being correspondingly concave. The symptoms of rickets had apparently not shown themselves until after the end of first dentition. Dr. Railton suggested the possibility of the flattening and bending being caused by the arms being grasped at that part while the bones were in a softened state.

Radical Cure of Hernia.—Mr. E. STANMORE BISHOP read a paper on this subject. After some remarks as to trusses and the objections to their continuous use, he gave a short sketch of the various operations at present available, and described a modification of the latest, that of Dr. Macewen, which he had used and found satisfactory. It consisted essentially of a novel manipulation of the sac, and was based upon Macewen's principle of reduction of the sac into the interior of the abdomen.

Reviews and Notices of Books.

Annual of the Universal Medical Sciences. (A Yearly Report of the Progress of the General Sanitary Sciences throughout the World.) Edited by CHARLES E. SAJOUS, M.D., and seventy Associate Editors, assisted by over two hundred corresponding Editors, Collaborators, and Correspondents. Illustrated with Chromo-lithographs, Engravings, and Maps. Philadelphia and London: F. A. Davis.

We have before us the second issue of this annual, and it is not speaking too strongly when we say that the series of five volumes of which it consists forms a most important and valuable addition to medical literature. In the preface to the first issue the object of the work was said to be to collate the progressive features of medical literature at large and clinical data from countries in which no literature exists, and to present the whole once a year in a continued form, prepared by writers of known ability. This not only shows the extent of the work, but indicates its usefulness. There are some changes in the plan of the second issue. For example, to each reference has been added the date, number, or volume of the journal quoted. Each periodical referred to directly or indirectly is represented by a number in the list at the end of the work, and this number is used in the text whenever the journal is quoted. By a system of double checking each reference has been verified. For the benefit of those unacquainted with the foreign weights, measures, and thermometric systems, grammes have been reduced to ounces, grains, &c., and centigrade and Réaumur thermometric measurements to that of Fahrenheit, both systems appearing side by side. There is a complete index to each volume, in addition to a full triple index of the entire work at the end of the last volume. The statement of the objects of the series gives an idea of the amount of labour and expense (which has not been spared) attending even a partial carrying out of the scheme, but its fulfilment means much more. Great discretion and knowledge of the subjects treated of are required at the

hands of those who have taken charge of the various sections, and the manner in which the gentlemen who were chosen to fill the important posts of sub-editors have acquitted themselves fully justifies the choice made. All the more important papers published during the year are alluded to, and their chief points briefly placed before the reader with just comment; cases are recorded; advances in treatment or useful suggestions criticised in a liberal spirit; modifications of old operations, their revival under new conditions or the performance of new ones, are given, and often illustrated. We know of no branch of the profession to which this annual could fail to be useful. Anyone proposing to read a paper on a subject before one of the societies would do well to consult this work, in order to discover what has already been done in the same line by other members of the profession; while to the practitioner who wishes to keep abreast of the times the knowledge of the work of the year is presented not only in a readable form, but in a manner which makes the perusal of the vast amount of information contained a pleasant task. We cannot enter into detail with regard to the five volumes, or the sections of which they are composed; we are simply able in the space at our command to draw the attention of the profession to the work, and recommend it as one most satisfactory in every respect, and reflecting credit upon all concerned in its production. As it becomes more widely known and appreciated, the date of publication of this annual will doubtless be looked forward to with much interest, as one of the events in the year's literature on subjects of professional importance, whilst its circulation must, if it maintains its present standard of excellence, become as world-wide as the information which it contains. Dr. Sajous deserves the thanks of the whole profession for his successful attempt to facilitate the advance of medical literature and practice.

Diseases and Injuries of the Ear; their Prevention and Cure. By CHAS. HENRY BURNETT, M.D. Edinburgh and London: Young J. Pentland. 1889.

In the preface the author states that he "has endeavoured to present the important subject of the diseases and injuries of the ear in a form free from technical terms, so that it may be understood by anyone." If by this statement he means that the book is intended for the general public, we doubt whether it will attain its object. The anatomy and physiology are too complex to be readily understood by the short description he has given. But for the general practitioner it would seem to us most excellent, as the epitome here given calls to mind forgotten knowledge. If the general public were to read through these pages (149), they might undoubtedly pick up some useful information of what to avoid in the way of treatment, for the ear, as a rule, receives too much attention from domestic remedies; but it is in every way better that instead of resorting to books sufferers should consult their medical attendants as to what to do and what to avoid. The work, however, seems to us most admirably suited for the busy general practitioner. The treatment for all the ordinary diseases of the ear is plainly and carefully described. It is still too common an event to find that fruitless efforts have been made at the extraction of a foreign body, that the ear has been syringed again and again for the extraction of wax when there was none to remove, and that astringent drops have been applied to the ear for a discharge in which an alkaline lotion would have been more suitable for the solution of old inspissated secretion in the tympanic cavity. All these mistakes are most carefully corrected and the right line of treatment impressively indicated. The busy practitioner finds it impossible with the limited time at his disposal to read all the special mono-

graphs of the present day; but for a subject like the one with which this little book deals, he will find here just the kind of information which will enable him in most ordinary cases to do justice to his patient.

Subjects of Social Welfare. By the Right Hon. Sir LYON PLAYFAIR, K.C.B., M.P., LL.D., Ph.D., F.R.S. Cassell and Co., Limited, London, Paris, New York, and Melbourne. 1889.

WE are glad to notice that Sir Lyon Playfair has put into a handy volume the many public addresses which he has delivered on questions which he divides into parts thus: Part 1, Public Health; Part 2, Industrial Wealth; and Part 3, National Education. There are few public men who have done more to enlighten opinion on such questions than Sir Lyon Playfair. In his statistics he certainly errs occasionally, and sometimes seriously, as on a memorable occasion when he raised the fears of Parliament of a failure of supply in the medical profession to meet a waste of fifteen or sixteen hundred, such waste being purely imaginary, and in excess by eight or ten hundred of the average waste by death, and the supply ever since has been several hundreds in excess of the waste. Similarly in this book we meet with a statement which we take to be seriously inaccurate: that in Glasgow nearly one half of the population (exactly 46 per cent.) live in one-roomed houses. We gather from the papers of Dr. James Russell, the able medical officer of health, that the proportion of the inhabitants of Glasgow living in one room is 24·7 per cent.; the proportion living in two rooms, 44·7. Glasgow is bad enough, but we must not make it worse than it is. But occasional statistical errors do not seriously affect the great value of these papers, which are important alike to medical men, statesmen, educationists, and philanthropists of all sorts. It would be difficult to overrate Sir L. Playfair's services in Parliament in connexion with such questions as vaccination, public health, teaching universities, and technical education. Working, generally, politically with a somewhat advanced and democratic party, his scientific knowledge and experience come constantly to the front to check prejudice and fanaticism, and to enforce the truth that if we are to maintain our position among the nations it must be by raising the quality of education alike in schools and universities. His powerful plea for teaching universities, as distinguished from mere examining bodies, and greater liberality to them on the part of the State, and for technical schools in which the taste and skill of workmen can be developed, is slowly bearing fruit. The volume before us contains his addresses on all these and many other subjects. The medical profession is under considerable obligation to Sir Lyon Playfair, as these pages will show. He exposes the folly of trying to direct local government in the country without due reference to medical men and medical science. We owe in large part to him the Medical Act of 1886 and the direct representation of the profession in the Medical Council. The profession will feel itself still more indebted to him after a perusal of these papers on matters of such great human and social importance as to be specially interesting to medical men.

SMALL-POX AT VENICE.—The British Representative at Copenhagen reports that owing to small-pox being at present epidemic in Venice the Danish Government has prohibited the importation from that place of used linen, worn apparel, used bed-linen, &c., excepting in the case of travellers' personal effects, when purification under official supervision is enjoined. In addition to Venice, similar provisions against the introduction of contagious disorders into Denmark are henceforward in force against Marseilles, all ports in Egypt, ports in Tonquin, Cochin China, the East Indies (including the Dutch East Indian Colonies), ports in the Red Sea, the Persian Gulf, Peru, and Japan.

THE
GENERAL COUNCIL OF MEDICAL
EDUCATION AND REGISTRATION.

FRIDAY, NOV. 29TH.

MR. MARSHALL, PRESIDENT, IN THE CHAIR.

The following report from the Pharmacopœia Committee was received:—

The committee report that 29,000 copies of the Pharmacopœia of 1885 have been printed, of which 559 copies remain in stock. The committee recommend that 3000 copies be now ordered from the printer, this number being the same as ordered on the last occasion. The committee recommend that an addendum to the Pharmacopœia of 1885 be prepared and issued in the course of next year, as was done in the case of the Pharmacopœia of 1874. The committee recommend that this addendum be prepared by Dr. Atfield, under the direction of the Chairman of the Committee, Sir Dyce Duckworth, and Mr. Carter, with the understanding that no new remedies are to be introduced into it except such as have met with general approval. This addendum should be prepared in sufficient time to allow proofs of the same to be sent to the several members of the committee at least one month before the meeting of the Council in May, 1890, in order to its being submitted to the Council. The committee recommend that the chairman, Sir Dyce Duckworth, and Mr. Carter, together with the reporter on the Pharmacopœia, be authorised to determine on and to take such steps as may be necessary for obtaining information and assistance in the preparation of the addendum.

RICHARD QUAIN, M.D., Chairman of the Committee.

Dr. QUAIN, in moving the adoption of the report, said the committee hoped that the various bodies would be ready to reply to any applications that might be made to them for information with regard to the compilation of the addendum.

Mr. WHEELHOUSE seconded the motion, which was agreed to.

LICENSING AND REGISTRATION OF MIDWIVES.

Sir JOHN SIMON moved: "If the Local Government Board or any other department of Her Majesty's Government were constituted controlling authority in relation to the local arrangements which might be made under statute for the licensing and registration of midwives, the Medical Council would, if Government so wished, be willing to advise as to the general rules of education, examination, and discipline which ought to be established in the matter; but the Council would not be able to discharge, and would therefore not be prepared to undertake, any duties of detail as to the registration of midwives, or as to the local arrangements for licensing and controlling them." He said the great object in dealing with the matter was to maintain continuity with former proceedings of the Council. This subject was not a new one. As far back as 1877 certain regulations were passed by the Council in reference to the midwifery question, and those regulations were in the following year confirmed. In 1882 a committee, of which the President was chairman, further dealt with the matter, and in the main the recommendations of that committee were approved by the Council—viz., that there was great need of a good national system of dealing with midwives, and that the Council was ready to give its assistance in a particular way if required. The resolution of 1877 was: "The Council is of opinion that it would be desirable to provide by legislation concerning two objects—first, the means under legal sanction which would be provided for giving credentials to competent midwives; and, secondly, that the lives of women in labour should, so far as practicable, be protected from the incompetent." That resolution was communicated to the Lord President of the Council. In 1878 the opinion was expressed by the Council that it was not necessary that a central register of midwives should be kept, but that there should be local registers, and the duty of keeping them should devolve upon the local authorities in the centres where the examinations were conducted. In 1882 both those opinions were confirmed by the Council. That was their present position, and the resolution he brought forward was intended to define how far they were prepared to go. He was sure every member would agree that the additional work thrown upon them for the last few years made it even more open to question than it was in 1877-78 whether the Council should undertake local obligations in this matter.

Sir WALTER FOSTER seconded the motion. He said he had been induced to give notice of a resolution on this question by what he felt was the growing scandal to

civilisation, that they should have incompetent persons taking charge of women under perilous conditions, and should have a considerable amount of disease brought about by their ignorance. The very last case of puerperal fever which he had seen was found to have arisen from the nurse having occasionally left her patient to go into another house to attend a child suffering from a malignant form of sore-throat. This showed how the ignorance of midwives was really a peril to the community, and that peril falling upon the poorest classes, it was a matter of public interest that some steps should be taken to prevent it. To that end it was essential that these women should be educated in some form, and that when educated they should be under some supervision and restraint. Some objection might be raised with reference to the authority that it was proposed to invoke. They did not propose any local authority, but would rather that it should be under the control of a central authority such as the Local Government Board. It would, however, be necessary that the Local Government Board should constitute some local authority to carry out this registration. Such a proceeding would have this advantage, that the public would then be able to find out at once whether a person acting as midwife had been properly registered and possessed the necessary qualifications to protect them from incompetence.

Dr. ATTHILL said that, owing to his position as master of the Rotunda Hospital, his experience in relation to midwives was necessarily very great. The Rotunda Hospital licensed annually a large number of women, and the greatest possible care was taken that those women were qualified. They had to remain at the hospital for six months, during which time they had an opportunity of seeing certainly not less than a thousand deliveries. They were lectured regularly by the assistants and sometimes by the master, and finally they passed an examination of very fair stringency. Notwithstanding all this, it was very hard to get a good midwife. The great majority of the applicants were servants, who, having been for perhaps twenty years in service, got tired of that occupation, and came up for training, the fees in some cases being paid by their former mistresses. Some turned out fairly well, but a great many were merely second-rate. In addition to that, there were women sent up from all parts of the country, some by the Poor-law guardians, to be educated for their particular districts. This was the worst class of all, many of them not being able either to read or write. If this was the experience in Ireland, what would it be in the country at large where there was no such system as had for years been in existence in Ireland? Some of those who came to the Rotunda were well-educated women who wished to make it a profession, and they turned out exceedingly competent. The great difficulty had always been to get competent midwives for the country districts, although the pay they received in Ireland was greater than it was in England. He was afraid that any attempt to carry out such a scheme as was proposed would be attended with great difficulty.

Mr. BRUDENELL CARTER said it was tolerably notorious that there were two agencies at work covering pretty much the same ground, with this marked distinction, that one was entirely under the control of medical practitioners and trained nurses, whereas the other was partially under the control of non-medical persons. Under those circumstances it was desirable that any resolution of the Council should be so framed as to leave an open door for some authoritative supervision of the education and registration of trained nurses, as well as of midwives, and not to tie itself down to some local arrangement which might or might not be desirable. No doubt if the whole matter were remitted to the Council by the authorities its inclination would be to support a purely medical association in connexion with these matters. He proposed as an amendment that the word "local" should be omitted from the resolution, and that it should include the registration of nurses as well as midwives. It would then afford somewhat greater scope for useful action in the future.

Sir JOHN SIMON thought the two subjects had better not be mixed up together. The subject of midwives was forced upon them by Parliament, and was ripe for legislation, but the other was not. He could not accept the amendment.

Dr. ATTHILL was in favour of the two words being used, so that everyone should be licensed as midwife and nurse. His reason was that they found in Ireland that if women were licensed as midwives only they immediately assumed

the position of practitioners. The licence was now given as "midwife and nurse."

Dr. GLOVER expressed his extreme gratification that this subject had been raised by so eminent a medical statesman as Sir John Simon. He objected, however, to the authority being handed over to the Local Government Board, which was associated with all sorts of political considerations, so that there was no saying what elements might be introduced into the question if that particular department was approached. Another objection was that the County Council would be entirely guided in the first instance by the medical officer of health. He was a most important person, and destined to be more so in future, but he should not have so predominating an authority as Sir John Simon's resolution would give him. He hoped that the very prominent suggestion of the Local Government Board would not be pressed, as he was sure it would not be acceptable.

Sir JOHN SIMON said they must recognise the constitution of the country; and if the Local Government Board was the department which looked after matters of local administration, that fact must be recognised. He perhaps had as little reason as most people to have sympathy with the Local Government Board, but the state of the law was that that was the body superior to county authorities. He did not name the county authorities in the resolution, and in mentioning the Local Government Board he added "or any other department of Her Majesty's Government." With reference to the very valuable remarks made by Dr. Atthill, there could be no doubt what they meant by midwives, and it would be very easy in laying down rules for their examination to make such provision as was necessary for their relation to nursing. The introduction of the word "nursing" into this very general resolution would only embarrass it.

Mr. WHEELHOUSE seconded Dr. Glover's suggestion for the omission of the words "Local Government Board."

Dr. LEISHMAN said, though he could not claim the extensive experience of Dr. Atthill with regard to the training of midwives, he had some experience in that direction, and was glad to state that matters were very much better all through the country than they were not many years ago. A good deal was being done by the agencies at work for which their gratitude was due; but there was a paramount necessity for something more. He gave his entire support to the resolution, and at once recognised Sir John Simon's plea that if they bracketed the question with that of nurses an element of difficulty would be introduced. One great difficulty was as to the sources from which midwives and nurses were obtained. No one would for a moment doubt that a nurse educated at the Rotunda Hospital would be a person deserving of confidence; but many women called themselves "certified nurses" who had received certificates from persons who had not the slightest warrant to grant them. The term must be made to mean something definite; that a woman had had a sufficient amount of training, and also elementary education, which would enable her to approach the subject with ordinary intelligence and a certain amount of practical experience. Any legislation recognising this fact could not fail to be beneficial.

Mr. BRUDENELL CARTER submitted his amendment in the following form:—"That if the Local Government Board, or any other department of Her Majesty's Government, were constituted controlling authority in relation to any arrangements made under statute or charter for the licensing and registration of midwives, or of midwives and nurses, the Medical Council would, if the Government department so wished, be willing to advise as to the general rules of education, examination, and discipline which ought to be established in the matter; but the Council would not be able to discharge, and would therefore not be prepared to undertake, any duties of detail as to the registration of midwives and nurses, or as to the arrangements necessary for licensing and controlling them."

Dr. MACALISTER seconded the amendment. He said there were two associations which he might call rivals, each desiring to be placed in control of nursing education. The British Nurses' Association was controlled by medical men, but the other was wholly without control. He thought the Council should be extremely wary how it took up one of these and cast off the other; but that was what Sir John Simon's motion would do. Such a proceeding would be at once taken up for advertising purposes, and therefore he

urged that any answer given by the Council should be in words which would be applicable to both.

Sir JOHN SIMON said he never had the slightest notion of any rivalry between the societies. He wished to give every possible assistance to the nursing movement; but it was entirely separate from the question of the education and registration of midwives.

Sir WM. TURNER thought that in going into the question of nurses the Council was exceeding its powers. It was a Council of Medical Education and Registration, not a nursing institution. He did not see why the Council should mix up in a squabble between these two bodies.

The amendment was then put to the Council and negatived.

Sir JOHN SIMON said, in reply to Dr. Glover, he had no objection to leave out the words "Local Government Board."

The resolution was then put, and agreed to in the following form: "That, if any department of Her Majesty's Government were constituted controlling authority in relation to local arrangements made under statute for the licensing and registration of midwives, the Medical Council would, if the Government department so wished, be willing to advise as to the general rules of education, examination, and discipline which ought to be established in the matter; but the Council would not be able to discharge, and would therefore not be prepared to undertake, any duties of detail as to the registration of midwives, or as to the local arrangements for licensing and controlling them."

It was moved by Sir JOHN SIMON, seconded by Sir WALTER FOSTER, and agreed to: "That, with reference to the communications which have passed between Mr. Pease and the President (pp. 144-147 of Minutes for Nov. 26th), the President be authorised to inform Mr. Pease that the Council regards with much regret the absence of proper public provision for the certification of competent midwives, and believes that the want of such provision is conducive to a large amount of suffering and danger to life among lying-in women of the poorer classes. That the President be requested to bring to Mr. Pease's knowledge the proceedings of the Council in the years 1877, 1878, and 1882 in relation to midwives, especially the following resolutions: Vol. xiv., p. 198, secs. 14 and 15; vol. xv., p. 65, sec. 13; vol. xix., p. 106, sec. 13, and p. 108, *Ha*; and further, to let Mr. Pease have a copy of the resolution this day passed by the Council on the part which the Council, if so desired by Her Majesty's Government, would be ready to take in a national system for the regulation of midwives."

It was also proposed by Sir WALTER FOSTER, seconded by Dr. GLOVER, and agreed to: "That this Council regards the absence of public provision for the education and supervision of midwives as productive of a large amount of grave suffering and fatal disease among the poorer classes, and urges upon the Government the importance of passing into law some measure for the education and registration of midwives."

REPORT BY THE EDUCATION COMMITTEE—DIPLOMAS IN STATE MEDICINE.

Dr. STRUTHERS moved: "That the report by the Education Committee in regard to diplomas in State Medicine be adopted to the end of the fourth paragraph in the following form:—

Report by the Education Committee in regard to Diplomas in State Medicine, on the Remit of the Council, Clauses 14 and 16 of the Minutes of November 26th, 1889.

UNDER CLAUSE 14.—In regard to the application by the registrar of the Victoria University, of September 23rd last, for recognition of the diploma in Sanitary Science of that University, the committee find that the conditions under which the diploma is asked for are not in conformity with the resolutions of the Council of June 1st, 1889. The committee recommend that the registrar be requested to call the attention of the registrar of the Victoria University to the resolutions of the Council of June 1st, 1889, in regard to diplomas in State Medicine. 2. In regard to the application from the Royal College of Surgeons of Edinburgh of November 15th, 1889, the committee find that the conditions under which the recognition of the diploma is asked for are in conformity with the resolutions of the Council of June 1st, 1889, and recommend the Council to consider the diploma as deserving of recognition in the Medical Register.

UNDER CLAUSE 16.—The committee find that the regulations of the following licensing bodies are in conformity with the resolutions of the Council of June 1st, 1889:—The University of Cambridge, the Royal College of Physicians of Edinburgh, the Royal College of Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow. The committee find that the regulations of the following licensing bodies are not yet in conformity with the resolutions of the Council of June 1st, 1889, and which will come into force on Jan. 1st, 1890:—The Conjoint Board of the Royal College of Physicians of London and

the Royal College of Surgeons of England, the University of Oxford, the University of Durham, the University of London, the University of Edinburgh, the University of Glasgow, the University of Aberdeen, the King and Queen's College of Physicians in Ireland, the University of Dublin, the Royal University of Ireland, the Royal College of Surgeons in Ireland.

Mr. WHEELHOUSE seconded the motion.

Explanations having been given by the representatives of the various bodies as to the reasons why their regulations had not yet been placed in all cases in conformity with the resolutions of the Council, the motion was agreed to.

The fifth paragraph of the report was read—viz.: "A considerable number of the above licensing bodies have expressed their intention to bring their regulations and procedure into conformity with the resolutions of the Council, and it appears to the committee that the only course open to the Council is to instruct the registrar to register in the meantime no diploma in State Medicine conferred upon practitioners registered as such after Jan. 1st, 1890, unless the said diploma be granted under conditions in conformity with the resolutions of the Council."

Sir WILLIAM TURNER said this was really the only paragraph of the report containing any contentious matter. The point on which he differed from the resolutions of the Council was when the special laboratory instruction in Public Health was to be taken. The Council said that it should be taken after the medical studies ordinarily so called had been completed. He thought that no such hard-and-fast rule should be laid down, and that if a student found that his arrangements for study, both for his medical and science degree, could be facilitated by taking his special laboratory instruction during his period of medical study, he ought to be allowed to do so. It was not a question, as had been said, of bringing this special instruction into the four years' course, for in the communication from the University of Edinburgh on the subject it was added: "It is scarcely necessary to state that all students who work as undergraduates in the Public Health Laboratory have decided on taking a five years' course." What they said was that if a student wished to take a five years' course and to apply himself during that period to a six months' course of special laboratory instruction, he ought to be allowed to do so. He concluded by moving: "That the Council modify Rule C of the resolutions passed on June 1st, 1889, in regard to diplomas in State Medicine, so as to permit the six months' course of practical instruction in a laboratory to be taken either before or after obtaining a registrable qualification, provided that the student to whom the privilege of taking his laboratory instruction before registration is granted has spent an additional year in medical study, and passes the examination in Practical Chemistry for his medical qualification before he enters the Public Health Laboratory."

Dr. LEISHMAN seconded the motion.

Mr. MACNAMARA claimed that the Royal College of Surgeons of Ireland had been the pioneer in the matter of hygiene, they having forty-five years ago appointed a professor of that particular branch. He agreed that a course of practical chemistry should be included in a five years' course. The more time that the student spent in the laboratory the better for himself in after life.

Mr. WHEELHOUSE, as a member of the Education Committee, said that in considering this question they first came to the conclusion to ask that the curriculum should be extended to five years, their reason being that in the four years at present at the disposal of the student he had not sufficient time for the completion of those studies which were necessary to give him a sound education in medical matters. If, therefore, they were asking for an additional year to enable him to do that, would it be right, at the same time, to take away half that year for a qualification which was to be a special one hereafter? He was strongly of opinion that a man ought to spend the whole time requisite to obtain a thorough medical education and to place him upon the Register in the study of the subjects requisite for that purpose. If, after that, he desired to study sanitary science for the purpose of becoming a sanitary officer, then let him take a special course of instruction and a special diploma.

Sir JOHN SIMON said Sir William Turner's motion cut at the very principle of the resolutions of the Council. The position taken by the Council was that State Medicine qualifications must be considered as additional, and subsequent to ordinary medical education. To trench on that principle by saying that a part of the special work might

be done during the general medical curriculum would be fatal to their main intention. If it did not do injustice to the speciality, it would do injustice to the general medical education; for it was not, to the best of his belief, possible for a man to complete his medical education and also to study a great speciality in five years.

Mr. MITCHELL BANKS said the object of the committee was that this diploma in State Medicine should not be a general one, but should be accorded to a practitioner who was going to undertake a general kind of work.

Mr. BRUDENELL CARTER said that those students who took five years to acquire their qualifications were not the best men. The Council should insist upon a perfect medical education before the special education of a medical officer of health was commenced, and if there was any man who was willing to devote five years to the attainment of medical knowledge including this diploma, surely his proper course would be to use that due diligence which, under existing regulations, would allow him to obtain his professional qualifications at the end of four years, and then he could have an additional year to devote to the special branch to which he intended to apply himself.

Dr. HERON WATSON thought the Council should not alter the regulations which it had already agreed to.

Sir WALTER FOSTER also thought it undesirable that the Council should proceed to rescind a series of regulations six months after they had been deliberately made. Those rules were made under special circumstances. They wanted the sanitary work of the country to be done under the new Act by men specially trained, and that they should have that special training after their ordinary period of study. Laboratory work required more consideration than ordinary student's work, and on that account they should come to it as a new work after completing their curriculum.

Dr. LEISHMAN thought the Council had proceeded with somewhat too much haste in the regulations it had drawn up. He had no objection to the future medical officers of health having a high sanitary diploma, but would prefer that the State should take the matter in hand itself.

Sir Wm. Turner's motion was then put to the Council, and negatived, ten voting for and sixteen against.

The Council then adjourned.

SATURDAY, NOV. 30TH.

MR. MARSHALL, PRESIDENT, IN THE CHAIR.

The Council having considered the report of the Executive Committee relative to the case of Mr. Wm. Edward Robson, on a motion put from the chair, it was resolved: "That the registrar be directed to restore the name of Mr. Wm. Edward Robson to the Medical Register."

It was agreed, on a motion by Mr. WHEELHOUSE, seconded by Dr. HERON WATSON, "That Clause a of Paragraph f of the Council's Regulations in Sanitary Science be amended, so as to read as follows: (a) 'To medical practitioners registered, or entitled to be registered, on or before Jan. 1st, 1890.'"

The Council then resumed the consideration of the report by the Education Committee in regard to diplomas in State Medicine.

Dr. STRUTHERS moved and Mr. WHEELHOUSE seconded the adoption of the two remaining paragraphs:—

A considerable number of the above licensing bodies have expressed their intention to bring their regulations and procedure into conformity with the resolutions of the Council, and it appears to the committee that the only course open to the Council is to instruct the registrar not to register any diploma in State Medicine conferred after January 1st, 1890, unless the said diploma be granted under conditions in conformity with the resolutions of the Council.

The committee further recommend that the registrar be instructed to request the various licensing bodies to transmit, before the first examination held by them in 1889, to the General Medical Council, their regulations for the diploma in State Medicine, with particular reference to any changes that may have been recently made in view of the resolutions of the General Medical Council of June 1st, 1889.

The resolution was agreed to.

Sir WILLIAM TURNER said the new regulations were framed on June 1st, and were intimated to the bodies on June 19th. Less than seven months was, therefore, to elapse between the intimation and the period when they were proposed to come into operation. He wished to direct the attention of the Council to what had been the action of Parliament in all cases connected with rules as regards registration coming into operation. The Act of 1858 contained a special clause allowing for certain exceptions from the general enactments of the Act, "so far as to the

Council shall seem expedient in favour of medical students who shall have commenced their professional studies before the passing of this Act." These dispensing powers were acted up to very largely. In the Dentists Act, passed in 1878, the compulsory clause as regards registration did not come into operation for twelve months, and the Medical Act of 1886, though passed in June of that year, did not come into operation till a year had expired. That was the uniform practice of Parliament. The Medical Council had, by its own regulation—No. 15—with regard to the registration of medical and dental students, recognised that there were exceptional cases which had to be taken into consideration: "The several Branch Councils, and in England the Executive Committee, if its meeting be more convenient and the case be urgent, shall have power to admit special exceptions to the foregoing regulations as to registration for reasons which appear to them satisfactory." He asked the Council to say that Regulation 15, with regard to the registration of medical and dental students, shall apply also to the rules for the registration of diplomas in sanitary science.

Dr. QUAIN was sure that such power, if given to the Branch Councils, would save great distress and hardship. A year's grace ought to be given.

Sir JOHN SIMON was quite prepared to admit that there ought to be an exempting power, but it should be given to the Executive Committee only, and not to the Branch Councils.

Dr. MACALISTER thought the motion too wide. The Branch Councils could, in fact, under the terms of the proposal, annul the regulations of the Medical Council. He should strongly support a proposal to enable the Executive Committee to take into consideration any defect in promptitude, but not to give it a dispensing power for the whole regulations.

Dr. KIDD thought it would be better to say the regulations were not to be enforced on the students who had commenced their education before Jan. 1st.

Dr. STRUTHERS had entire sympathy with giving exemptions when they could be safely given, but this was a wholesale power that drove the bottom out of their regulations. He hoped this power would not be given to the Scotch Branch Council.

Sir WILLIAM TURNER moved: "That the Executive Committee shall have power to admit exceptions in special cases to the rules for the registration of diplomas in Sanitary Science, and report the same to the General Council."

Dr. QUAIN seconded the motion.

Mr. BRUDENELL CARTER said that in dealing with the original registration of medical practitioners and dentists they were dealing with two very large existing classes, among whom there might necessarily be many persons precluded by want of knowledge or other circumstances from complying in time with conditions which were purely formal. In the case of sanitary diplomas they were practically constituting a new branch of the profession, and a rigidity of rules seemed to be necessary to prevent persons from crowding in who had no real scientific or practical knowledge of the subject. He felt very strongly that as a question of principle they could not hold up too high a standard of efficiency, and that when any question arose they should give the benefit of the doubt, not to the possibly unqualified candidate, but to the public, whom he wished to be called upon to serve.

The PRESIDENT said it would be a most invidious duty cast upon the Executive Committee to have to decide a case which was not simply that of a student, but involved the principle of action of the examining bodies. They ought not to have that duty cast upon them, and he therefore hoped the motion would not be adopted.

The resolution was then put to the Council and carried, thirteen voting in its favour and eleven against.

Dr. ATTHILL then moved: "That the Council take into consideration the communication addressed to them by the representatives of the medical authorities of Ireland, as the result of the conference held on August 5th last, in reference to diplomas in State Medicine."

Dr. QUAIN seconded the motion.

Sir WALTER FOSTER said he was quite willing that these communications, which raised the whole question of diplomas in State Medicine, and the regulations of the Council, should be considered by the Executive Committee, but he protested against the time of the Council being taken up in such a discussion.

Mr. MACNAMARA said if this question were sent to a committee it would eventually have to come up and be discussed in the Council. The bodies would not content themselves with the decision of the committee.

Dr. ATTHILL thought it would have a damaging effect upon the Council if it should be said that important communications from the Irish bodies were to be excluded from its consideration.

After some further discussion, the motion was put and agreed to.

Dr. ATTHILL said the report of the conference, signed by the representatives of the University of Dublin, the Royal University of Ireland, the King and Queen's College of Physicians, and the Royal College of Surgeons in Ireland, stated that in the not distant future there would be a demand for two classes of qualification in State Medicine, one for medical officers of health in small districts, and the other which must ensure "the provision of a distinctively high proficiency, scientific and practical, in all the branches of study which concern the public health," for those having charge of large districts. The question which would arise would be whether they would leave the public health in the rural districts altogether in the hands of men who had no education on the subject—for instance, of an ignorant police constable; or whether they would put in the way of their licentiates the possibility of obtaining a diploma, which would give them a fair knowledge of the subject. The conference reported that the regulation (*d*) of the Council, that "every candidate shall have produced evidence of having for six months practically studied the duties of out-door sanitary work under the medical officer of health of a county or large urban district," would be practically unworkable in Ireland, where no "county districts" and only a few "large urban districts" existed. Where were these candidates to be educated in State Medicine? If the regulation was complied with, it would be in a most perfunctory manner; in fact, it was impossible to carry it out. He moved, "That as the Council have not at present any means of knowing how far medical officers of health may be able or willing to undertake the education of pupils, the resolution of the Council referring to diplomas of State Medicine, and marked *d*, be not in the meantime insisted on, although it remains as a strong recommendation wherever found practicable."

Dr. CAMERON seconded the motion.

Sir WALTER FOSTER said the Executive Committee had ample power to deal with such cases.

Sir JOHN SIMON said the conference seemed to have overlooked the fact that the lower qualification in State Medicine was, in fact, included in the registered licence to practise medicine, surgery, and midwifery. By the recommendations of the Council relating to professional examination, it would be seen that no man was to be admitted to the medical profession who had not shown himself competent in hygiene, in pathology, in chemistry, and forensic medicine. So far as he understood State Medicine, the lower qualification was represented by that examination.

Dr. STRUTHERS said there was no hurry for this question to be settled in Ireland; there was no Local Government Act there at all.

Mr. TEALE said the question seemed to be not so much supplying Ireland with medical officers as being able to manufacture medical officers to come to England.

Sir JOHN BANKS said the University of Dublin wished to give but one qualification, and that the very highest. The appliances for teaching subjects connected with sanitary science in the two Universities were, he believed, equal to those of any other University—even that of Edinburgh.

Dr. KIDD said there were a great number of districts in which it would be impossible to obtain men with the highest qualifications, and the object was, without interfering with the Act of Parliament, to provide such a diploma as would give medical men a claim to the appointments in those poorer districts.

Dr. CAMERON said Dr. Atthill's motion contemplated giving a permissive character, at all events in the meantime, to Resolution *d* demanding a six months' attendance on the practice of a sanitary medical officer. He should not have voted for that resolution in May last if he had not had a distinct understanding and hope that, at all events for a time, it would have been left in a plastic condition and not made a hard-and-fast regulation.

Dr. WILKS said the London University wished in every way to conform to the regulations of the Council; but with

regard to Clause *d* they had on their Senate the greatest authority in London, next to Sir John Simon, and he said it was perfectly impossible to carry it out.

The PRESIDENT thought the last few words of the motion had better be omitted.

Dr. ATTHILL consented to that course, and the resolution was put and carried as follows: "That, as the Council have not at present any means of knowing how far medical officers of health may be able or willing to undertake the education of pupils, the resolution of the Council referring to diplomas of State Medicine, and marked *d*, be not at present insisted on."

It having been referred to the Executive Committee to consider the question of providing for the inspection of the examinations for diplomas in Sanitary Science, the amount of the fee to be paid for the registration of such diplomas, the fund into which those fees should be paid, and the application of this fund to the payment of such inspections, the following report was presented to the Council:—

The Executive Committee recommend the adoption of the following resolutions:—(a) That the opinion of counsel be obtained as to whether the General Council possesses the power to inspect the examinations in Sanitary Science, so that the General Council may be satisfied that these diplomas deserve recognition in the Medical Register. (b) That, in case the opinion should be in the affirmative, the Executive Committee recommend that they should be empowered by the General Council to report to the Council how a system of inspection should be carried out. (c) That, subject to the institution of a system of inspection, the fee for the registration of sanitary diplomas be not less than £3. (d) That these fees be paid into the account of the General Council. (e) That the fund thus created be available for the expenses of any inspection of examinations for diplomas in Sanitary Science which the Council may hereafter institute.

Sir WILLIAM TURNER moved the adoption of the first and second paragraphs, which were agreed to. He then moved the adoption of Paragraph *e*. He said the Executive Committee had very carefully considered the question of the fee. It was found that the examination could not be conducted without very considerable expenditure, and that a registration fee of not less than £3 would be required in order to cover the expenses.

Dr. HERON WATSON seconded the motion.

Mr. MACNAMARA hoped that the fee of £3 would not apply to those who already had registrable qualifications, or might obtain them prior to Jan. 1st. At present they were entitled to register that qualification on payment of 5s.

Sir WILLIAM TURNER said the fee would not be exacted unless the Council was advised by counsel that it could institute inspection—*ergo*, it would not be exacted till after the Executive Committee met in February next.

Sir WALTER FOSTER thought the fee excessive. He questioned whether there would be value for the expenditure of £3 in registration.

After some further discussion it was agreed to take out the words "three pounds," and amend the paragraph as follows: "That, subject to the institution of a system of inspection, the fee for the registration of sanitary diplomas be such as the Council may hereafter determine."

The other clauses in the report were agreed to, and the report as amended was adopted.

The Education Committee presented a second interim report, which was received and entered on the minutes; but its discussion was deferred till the May meeting of the Council. The report is as follows:—

The Education Committee hope to be able to complete their report in regard to preliminary and professional education for the next meeting of the Council. Meantime, the committee report that they are unanimous in thinking it desirable that steps should be taken by the Council to fix the period of study required to obtain a registrable qualification at five years. The committee, while strongly of opinion that the number of systematic lectures in certain subjects of medical education should be reduced, are not prepared to recommend the method of effecting such reduction till the Medical Council has expressed its mind on the suggestion for an extension of the period of study to five years.

On the motion of Sir JOHN SIMON, seconded by Dr. MACALISTER, it was agreed: "That in the opinion of the Council it would be much to the advantage of the public, and particularly would be of much convenience to the practitioners of medicine and surgery, that facilities, usable under proper guarantees in all parts of the United Kingdom, should be given by Act of Parliament or otherwise for the authoritative certification of competent trained nurses, who, when certified, should be subject to common rules of discipline; but that it does not appear to be within the province of the Council to propose legislation or other action for the object referred to, nor has the Council had any occasion to consider in detail the means by which the object might best be attained; and that, under these circum-

stances, the Council cannot give any opinion on the particular questions asked of it in Paragraph 6 of the Memorandum of the British Nurses' Association."

An interim report was received from the Examination Committee, stating that they had held several prolonged meetings with reference to the subjects remitted to them, but found it impossible to make a final report till May next. This concluded the business of the Council.

NOTE.—Mr. Leeson writes to say that the words "electrical trusses," appearing last week in the report of his cross-examination, should be "electrical treatment."

New Invention.

IMPROVEMENTS IN SURGICAL DRESSINGS.

WE have received from Messrs. C. E. Bennett and Co., of Manchester, samples of lint, absorbent cotton wool, sponge pads, &c., manufactured by them. These present some modifications from the ordinary material supplied; the lint, which they make by patent machinery, is soft and absorbent, and tears well in both directions. The absorbent wool is also very satisfactory, possessing greater power of absorption than those with which we have compared it; it is a very good wool. The bandages are absorbent to a considerable extent, and present advantages for use with evaporating lotions, or in the making of fixed apparatus, such as the plaster-of-Paris, gum, or starch splints. The sponge pads are well made, and will be found useful. These various articles are warranted to be thoroughly antiseptic, and are placed before the profession at a price which enables them to compete successfully with other makers.

THE DENTAL HOSPITAL OF LONDON.

THE annual dinner of the staff and past and present students of this hospital was held on Saturday, Nov. 30th, at the Holborn Restaurant, Mr. Christopher Heath, of University College, occupying the chair, and among the visitors we noticed Mr. Henry Morris, Mr. Sibley, Mr. MacKellar, the chief surgeon of the Metropolitan Police, Mr. Pearce Gould, Mr. Trimmer, of the Royal College of Surgeons, Mr. Bland Sutton, and others.

Mr. Smith Turner, in proposing the toast of "The Dental Hospital of London and Staff," gave, as an illustration of the immense amount of work done by the hospital, the figures for the number of extractions alone during the past year—namely, 13,000 cases, of which between 9000 and 10,000 were performed under an anæsthetic, and all gratuitous as far as the patient was concerned. He was glad to say that there was a considerably increased support from the public in the shape of subscriptions, and especially alluded to the munificence of Sir Edwin Saunders, whose name has been so long identified with this charity.

Mr. Woodhouse, in replying, said that after twelve years' experience as a member of the staff he was gratified to find that this year's entry of students was their largest. He considered the Dental Hospital of London had been the pioneer of dental surgery in the United Kingdom.

Mr. Henry Morris alluded to the excellence of the post-graduate classes of the hospital, which were not only attended by practitioners of dental surgery in this country, but also by foreigners.

Mr. Morton Smale, in a felicitous speech, alluded to so-called American dentistry as a bait to the British public. He stated that with just as much reason one might style surgery "German surgery" and medicine "French medicine." He appealed to the dental profession to avoid any semblance of advertising or quackery, and to keep themselves abreast of the progress of dental science.

ROYAL INSTITUTION OF GREAT BRITAIN.—Professor James Dewar, M.A., F.R.S., has been reappointed Fullerton Professor of Chemistry.

THE LANCET.

LONDON: SATURDAY, DECEMBER 7, 1889.

OF all hindrances to the reform of hospital abuses perhaps the greatest have been vagueness of statement and the mechanical reproduction of old and doubtful statistics by one speaker after another in successive years, extending over successive decades. We seem to be approaching a period of more accuracy and precision of statement, and we venture to believe that with every improvement in this direction we shall approach more nearly to an adequate perception of the great evils which exist and a just estimate of their remedies. We have not felt able to agree, in detail, with many of Dr. RENTOUL'S suggestions, but it is due to him to say that his statistics bear the mark of accuracy and of trouble in acquisition, and that where they have been called in question he has been able to support them. We are not sorry that in a recent number we called pointed attention to the apparent discrepancy between Dr. RENTOUL'S statistics of hospital abuse and Sir ANDREW CLARK'S. The letters of Dr. RENTOUL and Dr. HARRIS respectively, in THE LANCET of Nov. 16th and 23rd, show the substantial accuracy of both gentlemen. The letter of Dr. HARRIS is a most interesting and important contribution to this momentous discussion, and shows that in one institution at least hospital abuse has been intelligently and humanely dealt with, and at last reduced almost to a minimum. We shall reproduce here two or three of the principal points in Dr. HARRIS'S account of the methods taken at the Manchester Royal Infirmary to prevent abuse, in the hope of exciting in other quarters a desire to take the same pains, and to secure the same good results which have been realised in this important infirmary, with its three hundred beds. Under this system every applicant in the out-patient department of the infirmary is subjected to a searching inquiry as to pecuniary means. This is undertaken in the first instance by the hospital clerk. If the result is to show that the out-patient is in receipt of more than a very modest wage, he or she is invited to make a small contribution to the hospital. If it shows that the applicant is able to pay a private medical practitioner, the fact is announced to the assistant physician or surgeon for the day, and medical relief is refused. Other applicants are admitted, but patients living in Manchester and Salford are immediately visited by an officer of the Manchester and Salford Provident Dispensary, who makes inquiries and is instructed, in the event of certain wage limits being exceeded, to withdraw their infirmary card and inform them that they are not eligible to receive relief at the infirmary. He advises them to join the neighbouring Provident Dispensary. But the rules of this dispensary require the lapse of a month before coming into benefit, and during this period patients are attended gratuitously at the infirmary on producing evidence that they have joined the Provident Dispensary. Moreover, such patients as have duly joined the provident 'dispen-

saries are somewhat favoured by the hospitals. If the dispensary medical officer thinks the case one for infirmary treatment, it is admitted as an in-patient, without being asked for a contribution to infirmary expenses, as all other in-patients are.

Now the results of this system in the Manchester hospitals which have adopted it are remarkable, and teach striking lessons. When it was first originated in 1875, no less than 42·32 per cent. of the patients were found to be capable of either joining a provident dispensary or employing a private medical attendant. In the very next year the number of such persons had fallen to 24·5 per cent. Last year the number had fallen to 6·53 per cent., and Dr. HARRIS says that though he has closely watched the medical side of the out-patient department of the Manchester Royal Infirmary he has not found a single undoubted case of a person, whom he considered unfit, coming from the area of Manchester and Salford. This is a success to be recorded and studied. So far no contradiction of it has reached us. We should consider ourselves negligent if we did not emphasise it and hold it up either for imitation or for criticism. It is interesting for the twofold illustration of the abuse that did exist, but which no longer exists. If similar means were used in other towns, why should not similar success be obtained? Why are they not used? That is the question. We agree with Dr. HARRIS that the wage limit in Manchester—12s. for single people and 18s. for married (with an allowance of 1s. 6d. for each child)—is too low. Certainly it would seem so for London. But this is a matter of detail. The one thing we press here is that in the Manchester Royal Infirmary the existence of hospital abuse has been demonstrated, and has been practically abolished.

FROM the details given in our last issue it will have been seen that the second and third days of the session of the General Medical Council were mainly taken up with painful matters, in which, however, the general issue was on the side of leniency. In one instance a name was directed to be removed from the Register, and the stages by which the Council were enabled to arrive at this decision furnish a very curious insight into the management of an institution to which frequent reference has been made in these columns. If the explanation given before the Council of the circumstances under which no proceedings were taken against a medical journal, although an action was threatened, refers to THE LANCET, not only is the statement incorrect, but it will probably amuse those who still remember the nature of our charges against the "Electro-pathic and Zander Institute." If THE LANCET is referred to, the facts are as under: Writ issued for damages for libel at the suit of the Medical Battery Company, Limited, against the Proprietors of THE LANCET, on April 5th, 1889. Plaintiffs' statement of claim delivered on June 26th, 1889. Statement of defence delivered on July 26th, 1889. Plaintiffs served notice of discontinuance of action on Sept. 27th, 1889. The dates speak for themselves. Practically, however, these personal questions and a resolution relating to the mode of filling vacancies in the Executive Committee exhausted the interest of the second and third days. The last two days of the session were occupied with questions of wider interest, the chief topics being the licensing and registration of midwives and

the consideration of numerous matters connected with the diplomas in State Medicine. Upon both of these subjects considerable care was expended, but the conclusions arrived at showed that the members of the Council were by no means unanimous upon many essential points. Sir JOHN SIMON'S speech upon the advisability of some formal recognition of the training and examination of midwives was very moderate in its expressions, even though it showed that the Council had for the last twelve years been paving the way for measures by which legal sanction should be obtained for giving credentials to competent midwives, and for safeguarding the public from the misdirected energy of the incompetent. Dr. ATTHILL met these remarks with gloomy forebodings, drawn from long experience at the Rotunda Hospital; but it is evident that if, with all its facilities, a great many who are trained there are merely second-rate, something further must be done to improve the education and status of midwives. Sir JOHN SIMON had mentioned the Local Government Board, and had wished to pledge the Council to advise as to the general rules of education, examination, and discipline, without undertaking any duties of detail as to the registration or the local arrangements for licensing and controlling. Dr. GLOVER, however, urged reasons for not mentioning the Local Government Board, and in the end Sir JOHN SIMON'S resolution was carried in a modified form, and the Council passed to other business, after having once more very emphatically expressed an opinion that the "absence of public provision for the education and supervision of midwives is productive of a large amount of grave suffering and fatal disease among the poorer classes."

The report of the Education Committee upon diplomas in State Medicine gave rise to much animated discussion, as might perhaps have been expected, since it called attention to the relations between the regulations of many of the licensing bodies and the resolutions of the General Medical Council of last June. It was pointed out that a considerable number of the examining bodies had not yet placed themselves in conformity with these resolutions, and, by way of hastening their deliberations, it was moved to register "no diploma in State Medicine conferred upon practitioners registered as such after Jan. 1st, 1890, unless such diploma be granted under conditions in conformity with the resolutions of the Council." Certain of the examining bodies, while promising compliance with the resolutions of the General Medical Council, are already asking whether the latter possesses any legal power to impose the conditions under which these diplomas are to be granted; and a very strong protest was made at the meeting of the Council against making a hard-and-fast rule that the laboratory work for these diplomas should only be undertaken after the registration of a medical qualification. On the other hand, it was urged by Mr. WHEELHOUSE and others that it had already been decided to recommend that an additional year should be added to the ordinary medical curriculum, and that it was very undesirable to rescind a series of regulations six months after they had been deliberately made. After a lengthy discussion, an amendment which would have had the effect of unsettling the previous decision

of the Council was finally rejected, and the next point which gave rise to debate was the date when the new regulations were to be enforced. It was maintained, principally by some Scottish members of the Council, that the Executive Committee should have power to admit exceptions in special cases to the rules for the registration of diplomas in Sanitary Science; and although the President protested against casting such an invidious duty upon the Executive Committee, the resolution was ultimately carried by thirteen votes against eleven. Unmindful of the general desire to facilitate and expedite business by reference to the Executive Committee, Dr. ATTHILL then moved that the Council should take into consideration certain communications from the medical authorities of Ireland in reference to State Medicine. Sir WALTER FOSTER protested in vain against the time of the Council being taken up in such discussions, for Mr. MACNAMARA announced his intention to discuss these matters in the Council, and Dr. ATTHILL spoke of the "damaging effect" of excluding from consideration important communications from the Irish bodies. The Council, however, agreed to Dr. ATTHILL'S motion. The notion of the Irish licensing bodies seems to be that in the future there would be a demand for two classes of qualification in State Medicine—one for medical officers of health in small districts, and the other for a distinctively high proficiency for those having charge of large districts. Further, these bodies felt that one rule would be practically unworkable in Ireland at present, since no "county districts" and only a few "large urban districts" exist, and, moreover, the Council have no means of knowing how far medical officers of health may be able or willing to undertake the education of pupils. The discussion which ensued so far consumed the time of the Council that other important matters were either postponed until the May meeting, or passed in an immature form which will necessitate future consideration. The principal question thus shelved was the fee for registration. It was suggested that this should be fixed at £3, if the Council could institute inspection of the examinations in Sanitary Science; while it was also indicated that at present those who had registrable qualifications were entitled to register an additional qualification on payment of five shillings. The chief fact elicited from a somewhat desultory discussion was that the Council determined to obtain the "opinion of counsel" upon their power of inspection. Meanwhile, as we have above indicated, the "opinion of counsel" is also being sought upon their power of imposing the conditions under which diplomas in Public Health are to be granted; so that at the next session of the General Medical Council some interesting communications of a legal nature may be expected, and it is to be hoped that these will tend towards harmony.

THE various places which claim the attention and patronage of the profession as winter resorts for invalids become each year more numerous. One relies upon its dry air, another upon its equability, a third upon the high average of sunshine; others, again, upon scenic attractions or botanical treasures or archeological remains. It is not always thoroughly realised that individual characteristics

such as these are of very small consequence regarded separately. Dryness of the air would be of little avail to the invalid, if it should turn out to be associated with piercing winds and sudden perturbations of temperature. Equability, again, might be dearly purchased if we had to take it in conjunction with a damp sunless atmosphere. Botany or archeology may be useful distractions to the invalid, but they would hardly compensate him for the absence of such climatic conditions as his state of health might demand. In estimating the claims of any health resort, we must always look at the sum total of its characteristics rather than at any single peculiarity. If the air be very dry, we may expect without fail that the daily range of temperature will be considerable. If great equability be the subject of boast, we shall find that there is more than average humidity. It is only a philosophical balancing of the various meteorological characteristics of any resort, and a sound knowledge of how such characteristics bear upon the indications afforded by disease that can lead to any just and accurate conclusions on a subject which abounds in fallacies, and upon which nearly anyone feels competent to offer an opinion.

It must be freely allowed on behalf of many of our home resorts that there is a certain *a priori* claim to be put forward in their favour. They can be reached without the trouble, expense, and risks of a long journey. As regards food and sanitation, they are decidedly ahead of the average of foreign resorts, and recourse to them obviates distant separation from friends and any difficulties about language or national customs. On the other hand, our resorts labour under the disadvantage of having a long and comparatively sunless winter, much rain, and of lacking the attractions which lend so much charm to many of their foreign rivals. Recently we have been reminded from more than one source that the claims of Cornwall in this matter are of a somewhat remarkable character, and have been too much ignored. It is claimed for the climate of Cornwall that it is mild and equable during the winter to a degree that is extraordinary when the latitude is considered. If we take the three coldest months, December, January, and February, and compare the mean temperature of Falmouth and Penzance with that of Pau and Nice, we find the following rather unexpected results. The mean temperature of Falmouth for December is 44.3° F., and of Penzance 45.17°, while that of Pau is 42.8°, and of Nice 48.5°. In January the mean temperature of Penzance is 45.21°, that of Pau 41.2°, and of Nice 47.1°. February again shows Cornwall rather warmer than Pau, and only slightly colder than Nice. More important still is the equability of the Cornish climate. The difference between the means of the hottest and coldest months at Falmouth is only 16°, while at Montpellier it is 36° and at Pau 32°. The average difference of day and night temperature at Falmouth is only 6°—a remarkably low point. The flora of the neighbourhood bear witness to the great mildness and equability of the climate. Azaleas, acacias, aloes, agaves, myrtles, mesembryanthemums, asters, the sweet verbena, the Norfolk Island pine, bamboos, dracænas, eucalypti, hydrangeas, and a host of other such plants grow in the open air, and in many cases attain great perfection. There

is said to be a total absence of cold winds and of severe frosts.

It need hardly be said that the explanation of these meteorological features is the proximity of the Gulf Stream, and that similar features characterise the climate and flora of the corresponding portion of Ireland—viz., the county of Kerry, where the beauty of the scenery and the balminess of the atmosphere have not hitherto been recognised as they deserve. It cannot be denied, on the other hand, that both these regions, meeting as they do the first brunt of the moisture-laden winds from the Atlantic, receive a heavy proportion of rain. Thus, the rainfall on the Cornish coast is forty or fifty inches annually, and much exceeds that amount in the mountainous region of the interior of the county and in the highlands of Kerry.

We have, then, in the Cornish climate the following characteristics: a very remarkable degree of winter mildness, very great equability, with a somewhat heavy rainfall. It would be a desirable addition to our knowledge if we had full and trustworthy data regarding the relative and absolute humidity of the Cornish climate, the proportion of dry days in winter, and the amount of sunshine. It will be found, we suspect, that the humidity is high, and that the amount of sunshine is less than the range of temperature might lead us to conjecture.

For what cases is such a climate suitable? Mainly, we should say, for certain cases of bronchitis and certain types of general debility. The former affection would undoubtedly be favourably influenced by the general mildness of the air, and the absence of sudden changes, while the humidity would be rather an advantage than otherwise to patients whose expectoration is scanty and viscid. Many cases of debility and impaired convalescence might also be expected to do well in Cornwall. Its suitability for phthisis is a more doubtful matter. With the evidence that we have of the tendency of a damp soil to promote the disease, we should hesitate to send consumptives to Cornwall, unless there were reasons that made a more distant journey impossible. On the other hand, as a temporary resort during the east wind season Cornwall would be worthy of a trial by patients who have determined to winter in the British islands. Rheumatic cases would be obviously unsuited for Cornwall.

We think any attempt to popularise our home resorts is worthy of all praise, and that greater efforts should be made to render them more attractive, and hence more appreciated. We cannot compete in every case with the long hours of sunshine and the brilliant air of many foreign countries, but our own land has advantages for certain cases which we should always be prepared to recognise and utilise.

THE meeting held at the rooms of the Society of Arts on the 28th ult., for the purpose of forming a Gilbert Club, was an event just as important in medical as in electrical science, notwithstanding that the founders of the movement were in most part electricians, and that the movement itself was intended to vindicate the claims of the British school of electricity rather than those of medical science and practice. Dr. B. W. RICHARDSON—whose memoir of GILBERT and whose lectures upon his works will be in the remembrance of many of our readers—in seconding the resolution

to found the club, vindicated earnestly and warmly the position of GILBERT as one of the most distinguished of the physicians of the Elizabethan period. GILBERT, the contemporary of GALILEO, of HARVEY, of SHAKESPEARE, and of BACON, was by profession first and foremost a professor of physic. He was one of the physicians, in fact the favourite physician, of the Queen, was President of the Royal College of Physicians, a censor of the College, and in his day a busy practitioner of the highest class. In addition he did what a few other men of genius in our same profession have also done, he carried out during his leisure a purely scientific series of investigations in natural science, and in his great work "De Magnete" he laid the foundations of our modern knowledge not only of magnetism but of electricity. To him we are practically indebted for the use of the very word electricity, and to him we are indebted for the earliest experimental distinctions between the magnetic and the electrical forces. In this line of investigation he was ahead of FRANCIS BACON, and before BACON asserted the principles of the true inductive system he had tried and proved those principles by and through actual experimental research. Like HARVEY, whom he also preceded in this line of research, he based all he expounded on experiment; and it is only fair to say of him that much which has been considered very modern in regard to magnetism has long been buried in his immortal pages. His views on the earth as a great magnet anticipate the theories of the illustrious Sir ISAAC NEWTON himself, and another of his chapters on the relation of the magnetic force to the vital may, up to the present time, be studied by every physiologist and every practitioner with advantage as well as pleasure. There was also about GILBERT'S work,—as the seconder of the resolution to found the club was careful to explain,—more to admire than the absolute research which he accomplished, namely, the spirit in which the work was carried out. With GILBERT science was a true and even brilliant poetry. Some of the pages of his remarkable work on the magnet are charged with the most beautiful illustrations, as when he describes flies, ants, and other small creatures buried in amber, as creatures shining in eternal sepulchres ("*æternis sepulchris relucetes*"). Again, in the chapter in which he compares magnetic force to vital force, he breaks forth into a description of the life of the whole planet and of other planets and stars, with a quality of sublime poetry which his greatest contemporary of all might have envied, and the influence of which that contemporary probably appreciated and in various passages reflected in more rhythmical but not in more perfect form of expression. WILLIAM GILBERT was born at Colchester and died there. The house in which he was born, the "Tymperleys," still stands, and his remains are entombed in Trinity Church hard by. It was proposed a few years ago to erect a monument to him in his native town, and so add another trophy to one of the most richly trophied historical places in all these islands; and Mr. LAVER of Colchester, one of our medical brethren practising there, drew the attention of the new club to this project. The suggestion was timely, and was taken kindly, as something to be considered later on. But for the moment the intentions of the club are:—

(1) To produce and issue an English translation of "De

Magnete" in the manner of the folio edition of 1600; (2) to arrange hereafter for the tercentenary celebration of the publication of "De Magnete"; (3) to promote inquiries into the personal history, life, works, and writings of Dr. GILBERT; (4) to have power, after the completion of the English edition of "De Magnete," to undertake the reproduction of other early works on electricity and magnetism at such date as a majority of the members of the club desire.

Sir WILLIAM THOMSON, F.R.S., was unanimously elected the first President of the Club, with Mr. JONATHAN HUTCHINSON (President of the Royal College of Surgeons), Dr. B. W. RICHARDSON, Prof. HUGHES, Lord RAYLEIGH, Prof. REINHOLD (President of the Physical Society), and Mr. HENRY LAVER as Vice-Presidents; Mr. LATIMER CLARK as treasurer; Mr. LANT CARPENTER, Prof. FERGUSSON, Sir PHILIP MAGNUS, Prof. RUCKER, Prof. CAREY FOSTER, and Prof. FORBES as a Council; and Mr. CONRAD COOKE, Mr. RAPHAEL MELDOLA, and Prof. SILVANUS THOMPSON as honorary secretaries. For the present it is determined to limit the list of members of the club to two hundred, but the list will probably be extended as the work of a Society so happily and successfully organised becomes more widely known at home and abroad.

Annotations.

"No quid nimis."

THE LANCET AND THE HYDERABAD CHLOROFORM COMMISSION.

WE have just received from Dr. Lauder Brunton the following telegram, which we print *verbatim*:—"Four hundred and ninety dogs, horses, monkeys, goats, cats, and rabbits used. One hundred and twenty with manometer. All records photographed. Numerous observations on every individual animal. Results most instructive. Danger from chloroform is asphyxia or overdose; none whatever heart direct." These results apparently indicate such a complete reversal of the view held by Dr. Lauder Brunton at the time he left England—that one of the dangers resulting from chloroform is death by stoppage of the heart—that the details of the experiments made by Dr. Brunton, and the reasons for the conclusions he has evidently arrived at, will be awaited with the greatest interest by the profession.

THE NEW LUNACY ACT.

A VERY important decision has been given under this new statute in a case of Toogood against Wilkes, particulars of which have been courteously supplied us by the legal advisers of Mr. Wilkes, the defendant in the action. The action was brought to recover damages for the alleged wrongful giving of a certificate of insanity. The proceeding now under notice was taken under Section 12 of the Act, which provides that: "If any proceedings are taken against any person for signing or carrying out or doing any act with a view to sign or carry out any such order, report, or certificate, or presenting any such petition as in the last preceding subsection mentioned—i.e., petition for a reception order—or doing anything in pursuance of this Act, such proceedings may, upon summary application to the High Court of Justice, or a judge thereof, be stayed upon such terms as to costs and otherwise as the court or judge may think fit, if the court or judge is satisfied that there is no reasonable ground for

alleging want of good faith or reasonable care." In support of an application for a stay of proceedings under this section, Mr. Wilkes put forward affidavits by himself and others setting out the circumstances upon which he based his conclusion as to the insanity of the patient and supporting the soundness of his diagnosis, and further showing that he had taken proper care and followed the lines marked out by law for his guidance in such a case. The plaintiff replied with affidavits setting out his views of the facts, and the judge before whom the summons came considered all the facts as so brought out, and formed his own opinion that there was no reasonable ground for alleging want of good faith or reasonable care. Acting upon this view, he ordered a stay of proceedings, an order which amounts in substance to a dismissal of the action. This probably is the first occasion upon which this very summary method of disposing of an action of the kind has been put in operation. Indeed the Act passed only in August last and its general provisions are not to take effect until next May. The particular section under which this summons was taken out has, however, come into operation at once, by virtue of an express provision to that effect, and Mr. Wilkes has thus had the advantage of a cheap and speedy determination of what under the old procedure would have necessarily been a long, anxious, and probably costly proceeding. It may seem a little ungracious on this occasion, when the profession has in the person of Mr. Wilkes received the full benefit which the Legislature intended to confer, to express any doubt as to the effectiveness of the method prescribed for its intended purpose. But at the same time we cannot help perceiving that in the hands of a judge less experienced or more timid than Mr. Justice Field, the result might have been much less satisfactory than it was. It is, for example, quite possible that another judge might take the view that his function at such a stage of the proceedings was not in effect to try the case, but only to ascertain that there was a *prima-facie* case to be tried. In other words, he might say, "My function is not that of the petty jury which will have to determine the facts as between the parties, but rather that which a grand jury would exercise if it were usual to submit civil actions to that tribunal." Then, instead of looking at the defence, he would have looked only at the allegations which the plaintiff made, and if they showed a plausible case he would have refused to withdraw the question from the ordinary jurisdiction. The same thing would probably have happened in this instance if any serious conflict of testimony had arisen, and it is plain that a defendant might be seriously prejudiced in his defence by the fact that a preliminary judgment had been given against him on substantially the same evidence as that on which he would rely at the trial. Happily on the present occasion the difficulty does not arise; the relief intended has accrued; and we can say without reserve that we hope that on future occasions the Act will be found to be equally effective for its intended purpose.

INSANITARY HOUSES IN LONDON.

EVERY now and then the newspapers devote their attention to the insanitary houses, of which too many are to be found in the metropolitan area. Within the last week a number of applications have been made to the magistrates for orders to close houses which were stated to be unfit for human habitation. Some of these applications were made by private individuals, who elected to apply directly to the magistrate rather than the local authorities. Thus, a number of ladies and gentlemen asked Mr. Bros, at the Clerkenwell Police Court, to close a house in Greville-street, Leather-lane. The Mansion House Council appealed to Mr. Lushington, at the Thames Police Court, to close five

houses in Frimley-street, Mile-end. No decision has yet been given in these cases, but Mr. Bros pointed out that the disadvantage of proceedings like those taken by private individuals was that the evidence was given in such a form that the Bench did not know what kind of order to make. The Nuisance Removal Act undoubtedly intended that the local authorities should undertake these duties, and the fact that private individuals could proceed is, we presume, a provision for cases in which the local authorities were in default. Mr. Bros obviously adopted the best course in requesting the medical officer of health of the district to inspect the house and report as to the work which was required to be done. The sanitary authorities are, however, to blame in making it possible for private persons to take the initiative. If their district were properly inspected, they would themselves be the first to know and to demand the remedy for unwholesome conditions. One of the most useful powers, that of regulating houses let in lodgings, is practically in abeyance in the greater part of London. The facilities which this system gives the vestries for obtaining penalties when such houses are faulty are well illustrated by a prosecution by the Bermondsey vestry of the owner of a house who had permitted overcrowding. In this case Mr. Fenwick fined the defendant 40s. and 2s. 6d. per day, or £7 4s. in all, with the alternative of one month's imprisonment. St. Pancras is sharing the publicity that has been given within the last few days to other parishes. The vestry have had under consideration a report to the London County Council on insanitary areas, and we gather from statements in the press that dilapidated houses are to be found in many streets in that district. The question of ownership has not unnaturally been investigated, with a result that the Ecclesiastical Commissioners have been accused of negligence, and, indeed, are to be subjected to prosecution. The leasehold system gives opportunities for freeholders to enforce repairs, or to remain in ignorance of the condition of their houses until the end of the leases, and the latter is usually the rule; but the moral obligation remains, and where the law can be put in motion against a negligent freeholder, the sentiment of the time will give him no sympathy.

DR. RICHARD VON VOLKMANN.

It is with much great regret that we have to record the death of Dr. Von Volkmann, one of the greatest surgeons of the present century. For several years he has occupied the foremost place among German surgeons, and he has exerted an unequalled influence over the younger generations of German practitioners. His enthusiastic adoption of the aseptic treatment of wounds was the most powerful influence which led to its general adoption in Germany. Working for many years in a hospital which combined nearly all possible hygienic defects, it was not surprising that he met with disastrous results from erysipelas, pyæmia, and all septic diseases. With characteristic energy he strove to overcome his enemy, but in spite of the use of carbolic acid as a disinfectant, and of the open treatment of wounds, he was so discouraged by the high mortality that in 1871 he had determined to close his hospital for a time. Fortunately he decided first of all to give the new aseptic treatment a trial, and immediately an entire change in his results ensued. Volkmann found that by simply changing his system of wound treatment he was able literally to banish all the septic diseases which before had been so rife and had resisted all his earlier efforts. He at once became a most enthusiastic advocate of aseptic surgery, and many of the strongest statistical arguments in its favour have come from his wards at Halle. Many of our readers will remember the impassioned address on

modern surgery which Volkmann delivered before the International Medical Congress in London, in which he drew attention to the enormous reduction in the mortality of all surgical procedures in Continental cities since the introduction of antiseptic surgery, and to the great enlargement of the legitimate field of surgery which had ensued. But, in addition to being a brilliant and successful operator, Volkmann has done great service by his literary efforts. His own writings, particularly some lectures and articles in Billroth's and Pitha's "Handbuch," are among medical classics. He also edited a *Centralblatt für Chirurgie* and a collection of clinical lectures of quite unrivalled value. He was an indefatigable worker, a learned surgeon, a bold and brilliant operator, and there is scarcely a department of surgery that does not owe some advance to his work and teaching. Physically he was not robust, and for some years he had not enjoyed good health, and so his friends were not altogether unprepared for his death. He had taken a patient to Jena, and was there attacked with acute pneumonia, which speedily proved fatal. His age was fifty-nine.

THE EDUCATION OF THE BLIND AND DEAF-MUTE.

It cannot be said that in this country too much has been done to restore the maimed in sight or hearing, in so far as this can be accomplished by means of education, to the companionship of their more capable neighbours. For what progress has been made we are indebted chiefly to voluntary effort. The Legislature, content with the still recent achievement of a national school board establishment for the benefit of the healthy many, has till now passed over the case of the imperfect few. The time for a change of plan has, however, come, and of this we have an earnest in the recently published report of the Royal Commission on the Blind, Deaf, and Dumb. This laborious digest, which affords much useful information on the subject in question, was discussed at some length by the representatives of institutions for the blind who met in conference last week at the Society of Arts. A series of resolutions was then passed, the purport of which was to urge the Government, while duly observing the rights of existing endowments, to bring into practical shape as early as possible the decisions arrived at by the Commission. Briefly stated, these were to the effect that the education of blind or deaf and dumb persons must no longer be left in the exclusive charge of voluntary charity or of the Poor-law guardians as heretofore, but should in the case of children form a part of the regular School Board training; that for the adult blind technical training was necessary, and that as now carried out it was very defective. They suggested that it should in such cases be provided for out of the rates, and if possible supplemented by a system like the Saxon *Fürsorge*, designed to foster the skill thus acquired by the learner by finding him tools and other necessities for a fresh start in life. The technical training of youths and children was to be assigned to the Education Department. One point which is particularly noticeable in this report is the prominence given to the teaching of the blind as compared with that of deaf-mutes. Several reasons may be assigned for this. According to census returns the former class is considerably the larger. It also includes a large number of persons deprived of sight by accident, and, but for this defect, capable of profitable work. Lastly and chiefly, it is to be noted that the blind, if possessed of the other senses, are even from infancy much more teachable than the speechless surd, and the difficulty interposed by the loss of language is in direct ratio to the lack of teachers fully qualified in the oral method, and the cost of their arduous and valuable services. Notwithstanding these

opposing circumstances, however, it is encouraging to reflect that the education of deaf-mutes thus carried out has been abundantly successful—a fact which will warrant the formation, at all events, of certain teaching centres for their benefit. It must be remembered that the education of this class, as well as of the blind, tends ultimately towards economy, and will thus also justify any reasonable effort and expense devoted to an object otherwise most desirable.

THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST.

THE dispute between a small section of the governors of the Royal Hospital for Diseases of the Chest and the Council of that institution relative to the dismissal of the secretary, whose attitude towards the medical staff had jeopardised the existence of the hospital, ended in the most satisfactory manner. The meeting on the 26th ult. was presided over by the late Lord Mayor, and the action of the Council was supported, as we reported last week, in admirable speeches from Lord Derby and Mr. Jonathan Hutchinson, who moved and seconded a vote of confidence in the Council. Lord Derby dwelt upon the "unjust accusations" brought by the late secretary against the medical staff, and maintained that that gentleman had entirely failed to make his charges good, and that therefore the Council could not allow the staff to resign. Mr. Hutchinson considered it presumptuous on the part of the secretary to pronounce an opinion upon the medical treatment of the patients, and further added that if the resignation of the staff had been accepted, there would have been no one to replace them, for no self-respecting surgeon or physician would take office under such conditions. It is not surprising to learn that the vote of confidence was carried by an overwhelming majority, and the subsequent resolution inviting a conference with the Council of those who had requisitioned the meeting is calculated to further restore the harmony which has been so seriously imperilled. It is not, however, said, and it will, we suppose, remain always unexplained, how it was that the secretary should have gained cognisance of the particular instances he cited in support of his baseless charge. He was no judge of the manner in which patients were to be treated, and that he should have persevered in his allegations after their complete refutation in Dr. Hensley's memorandum is quite incomprehensible.

MYXOMA OF THE INFRA-ORBITAL NERVE.

At the December meeting of the Odontological Society, Mr. E. Lloyd Williams showed a patient with the following history. A woman aged twenty-three applied at the Dental Hospital of London complaining of severe neuralgia of the right side of the face, affecting also the teeth from the bicuspid forwards. The removal of several teeth failing to give relief, and antral trouble being suspected, she was sent to the Middlesex Hospital to Mr. Bland Sutton. He found, upon examination, that there was no bulging of the walls of the antrum, but there was slight increased resistance to pressure upon the lower orbital plate. The pain, which was intense, was referred to the area of distribution of the infra-orbital nerve, and all the skin supplied by its branches were anaesthetic even when pricked with a needle so as to draw blood, but the temporal branch of the orbital nerve and the posterior dental nerve were not affected. Mr. Bland Sutton was of opinion that the antrum contained a tumour entangling the infra-orbital nerve. No drug except large doses of antipyrin gave any relief, and that only temporarily, so an operation was decided upon. The lip being divided and the cheek reflected, a small nodule of a growth was seen emerging from the infra-orbital canal; and believing this to be sarcomatous, Mr. Bland Sutton,

with the acquiescence of his colleagues, proceeded to remove the superior maxilla, including the orbital plate, in the usual way. Subsequent examination showed the antrum to be filled with a mass about the size of a walnut, which was covered with mucous membrane bearing columnar epithelium, and was evidently a myxoma springing from the connective tissue of the infra-orbital nerve, spreading and expanding the nerve fibres among the tumour. Mr. Sutton believes this to be the first case reported of a myxoma affecting a branch of the fifth nerve and filling the antrum, and that there is a strong probability that they have often occurred but been either overlooked or mistaken for sarcomata. The importance of a correct diagnosis is obvious, as these tumours, being benign, might be enucleated, and excision of the whole bone obviated.

ST. JOHN AMBULANCE ASSOCIATION.

THE report of the Association for the year ending July 31st, just issued, affords evidence of continued satisfactory progress. The total number of certificates issued was 24,217, being an increase of 2036 on the numbers in the preceding year. They were classed as follows:—Male "first aid," 14,754; female, 6738; female nursing, 2725. During the year eleven new Centres were formed in England, and two abroad, one at Ceylon and the other at Formosa. Nursing corps are also stated to be on the increase, and many ladies holding certificates avail themselves of the opportunity of getting instruction in "sick cookery" and "district nursing," offered by St. John's House at Worcester. Measures have been taken to provide fixed ambulance stations, in full working order, at—(1) Ludgate-circus; (2) Burlington Hall, Savile-row; (3) Young Men's Christian Association, Aldersgate-street; (4) the People's Palace; (5) Little Britain; (6) St. Paul's Churchyard. The report gives details of some cases in which police and railway holders of certificates of proficiency have rendered valuable "first aid." A just tribute is paid to the services rendered by the late Colonel Duncan in connexion with the Association. A Duncan Memorial Fund is being raised, to which it is proposed to give grants from the general fund towards founding "Duncan Schools of Ambulance" in Woolwich and Sunderland, and a "Duncan Commissionership" to visit and assist existing centres, to organise new ones, and to promote ambulance work generally. These seem to be appropriate means of keeping in remembrance the important philanthropic work done by Colonel Duncan in connexion with the objects of the Association.

BURIAL BENEATH A CHURCH.

THE Rev. and Worshipful T. E. Espin, Chancellor of the Diocese of Chester, has in that capacity been called upon to decide a very important question. Underneath the parish church of Bebington (a pretty village on the Cheshire side of the Mersey, where many Liverpool merchants and others reside) are vaults wherein a certain number of bodies are buried. One of these vaults belongs to a Mr. Green, whose son died some time ago, and he has applied to Chancellor Espin for a faculty to open the vault, and to re-inter there the body of his son, which was temporarily interred at Claughton, Lancashire, a faculty having been granted by the ecclesiastical authority of Manchester for the removal of the body. This vault has not been opened for more than forty years, but in 1871 the church was restored and some of the other vaults were opened, the result being such a sickening stench as to drive the workmen away. It was at first proposed that the vault should be opened from within the church; but after the strongly expressed opinion of the Chancellor that he ought

not to sanction this, it was then proposed to effect an opening from outside. Evidence was given by architects and medical witnesses on both sides to the effect, on Mr. Green's behalf, that the vault could be reached from outside with perfect safety to the building, and that the body could be interred there without any risk to the health of the members of the congregation. On the other hand, the rector, churchwardens, and majority of the parishioners strongly opposed the granting of the faculty, and tendered evidence to show that the breaking into the vault from outside must be attended with danger to the fabric, and that there must be a certain amount of risk to the congregation in reinterring any dead body in the vault in question. It is somewhat remarkable that no reference was made to the Home Secretary during the inquiry, especially as it will involve the exhumation of some bodies, and that so far it appears to be simply a question of ecclesiastical rights. The Chancellor has postponed his decision until the next sitting of the Consistory Court in January next. It would be improper to discuss the question, though in these days of burial reform it is both surprising and lamentable that such an application should ever have been made.

THE INFLUENZA EPIDEMIC IN RUSSIA.

REPORTS continue to be received of the extension of the remarkable epidemic of influenza in Russia, where the Imperial family have been amongst those attacked. We repeat our belief in the likelihood of its spreading over the Continent and even reaching our shores. It is stated that Professor Zehakaer, at a meeting of the Russian Association for the Preservation of Public Health, declared that the influenza was likely to be the forerunner of cholera, which might consequently be expected to appear in Russia next spring, basing this surmise on his experience of five cholera epidemics, each of which was preceded by an epidemic of influenza. He therefore urged the necessity for promptly taking suitable sanitary precautions. Cholera is now prevalent in Persia and the Caucasus, and there is no doubt that any zymotic disease would be likely to have a greater effect amongst people debilitated by influenza.

SWIMMING-BATHS FOR LONDON.

WE are glad to understand that a movement is on foot for bringing to the notice of the Corporation of London the very inadequate accommodation which the City affords in the way of swimming-baths, and of coupling this representation with the suggestion of a remedy which lies within the power of the Corporation to apply. The suggestion is that a site upon the Thames Embankment should be appropriated to the purpose of a swimming-bath, and it is thought, as doubtless is the case, that if the Corporation would provide a site the buildings might be erected and the bath conducted by private enterprise. In such a suggestion we most heartily concur. It is to us wholly inexplicable how at the present day the strange insufficiency of this particular kind of accommodation in London should be what it is. Nothing that we can compare with it affords a parallel or helps to an explanation. The exercise of swimming is most popular, and deservedly so. The demand for swimming-baths in the midst of this great capital is practically inexhaustible, is growing year by year, and might be stimulated by judicious catering to an indefinite extent. Yet no one has thought it worth while to undertake the provision of swimming-baths on a scale commensurate to the needs of London in the matter of number, space, and style. The work is one that should commend itself equally to the enterprising capitalist and to the enlightened philanthropist; and yet in this city, where capitalists and philanthropists most do con-

gregate, neither the one nor the other can be induced to come forward and embark on what would *a priori* appear to be a most congenial task. We sincerely hope that the present movement will lead to some useful result, and that either the Corporation or some other body or individual with command of the necessary means will be persuaded to undertake the supply of this very pressing need.

INSANITARY SCHOOLS.

SOME weeks ago we drew attention to certain reported defects in the sanitary state of several metropolitan Board schools. If reliance may be placed on the statements of Mr. John Lobb with reference to this matter, the evil is even more widely spread than it then appeared to be. Several instances of apparently gross neglect are quoted by this authority. In the case of a school in Tottenham-road, Kingsland, the drainage system was recently shown to be in a markedly defective state, and probably accountable for a fatal outbreak of diphtheria among the children. At another school in Hoxton the old and most culpable blunder of imperfect pipe connexion resulted in a subterranean overflow of sewage. Another is described as built over a veritable bog of manure—a fact of which official notice was given by the clerk of works during the erection of the school, but without affecting the faulty plan pursued. The whole flooring had subsequently to be taken up at great cost. This and other examples of structural mismanagement are said to have occasioned a total expenditure of £10,000, which, as Mr. Lobb justly maintains, is far too large a sum to be squandered as a premium in the art of school construction. Economically considered, the margin thus absorbed in failure is a wide one enough. Associated as it is with sanitary defects of a most serious kind, it probably represents an amount of disease considerably greater than that with which its connexion can be actually traced. It clearly behoves the Board, therefore, unless these damaging accusations can be disproved (as we sincerely hope they may), to reorganise as early as possible their methods of procedure.

COMPULSORY VACCINATION.

IN our issue of Oct. 12th we commented on a statement made by Mr. Alfred Milnes, M.A., F.S.S., at a meeting held at Guildford during the preceding week, in condemnation of the Compulsory Vaccination Act. This statement was used as argument against the view that revaccination protected against small-pox, and was to the effect that during the last small-pox epidemic "eight cases, nurses and attendants in a hospital, who had all been revaccinated, occurred, and there were two deaths." We were led to believe by the report of Mr. Milnes' speech in a local journal that Sheffield was the town referred to, and we showed from Dr. Barry's recent report that so far as Sheffield was concerned there was no foundation for the statement. Mr. Milnes subsequently wrote to us denying that his statement referred to Sheffield, and enclosing another report of his speech, showing that the institution to which his observations related was the Perth Royal Infirmary. We accordingly made our apologies to Mr. Milnes, and expressed our willingness to give the facts as to this hospital on a future occasion. We are now, owing to the courtesy of Dr. Graham of Perth, able to carry out our intention, and our readers will be able to judge of the accuracy of Mr. Milnes' assertions. Eight persons, Dr. Graham says, nurses and patients, were attacked with small-pox in the Perth Royal Infirmary between Oct. 3rd and Oct. 12th, 1887. Regarding five of these no information could be obtained as to whether they had been revaccinated, and no evidence of revaccination was found by examination

of the arms. Of the remaining three, two were attacked with small-pox on Oct. 5th, the date of the revaccination being Oct. 4th; the third, Dr. Graham informs us, had been revaccinated three times, the last occasion being on Oct. 4th. This last person's small-pox began on Oct. 12th, and the extent of the small-pox was the appearance of two spots. It is needless to say she recovered. Mr. Milnes is correct in his statement that two persons died, but one of these belonged to the group for which there could be obtained no information as to whether they had been revaccinated, the other was one of those who had been revaccinated only the day before their small-pox began.

BELGIAN PARLIAMENTARY DISCUSSION ON UNIVERSITY DEGREES.

OUR Belgian *confrères* are fortunate in having an eminent Brussels surgeon (Dr. Thiriar) to lay their views on medical education before Parliament. In the discussion on the Bill concerning university degrees, Dr. Thiriar enunciated the opinions unanimously expressed by the Medical Federation, which were mentioned in our last week's issue, and he was well supported by another member (M. Cartuyvels) in urging the need for a preliminary or entrance examination, "as required in France, Holland, England, and Germany, and even in Belgium itself for the military and some other special schools." Once upon a time there was a law compelling every man to follow his father's trade; now, however, it appears to be the ambition of most people to get out of the sphere which sufficed for their parents. M. Cartuyvels quoted a Chinese proverb: "If everybody is to ride in the palanquin, who will be left to carry it?" In Belgium, he remarked, everyone now wants to become either a barrister or a doctor. There are now about 6000 students in the Belgian universities. What is to become of them all? The chief opponent of the views of MM. Thiriar and Cartuyvels was M. Woeste, who denied that general education had suffered from the law of 1876 rendering the entry into professional studies free. He expressed himself as quite satisfied with the plan of merely requiring a certificate of having been a certain time at school. He does not object to the overcrowding of the professions, looking upon that as an indication of intellectual development and of a love of knowledge that ought to excite admiration rather than any sentiment of alarm.

AMBULANCE WORK.

ON Dec. 2nd Mr. Richard Davy undertook the conveyance of a man from Westminster Hospital to Chertsey Union. The patient, aged fifty-nine, was suffering from acute angular curvature of the spine and multiple aneurysms; his condition was very helpless and irremediable, yet the desire to get out of London to his own home was intense. Mr. Davy put him up first in a good plaster-of-Paris jacket, and then, with the assistance of a porter, placed the patient in a light hand ambulance. From the time of leaving the hospital until he reached his bed at Chertsey, the man never left the stretcher. He was slung to two hooks in the railway van between Waterloo and Chertsey. The journey occupied two hours and a half, the distance by road from Chertsey station being two miles, and gave the poor fellow much gratification. A full description of the ambulance has been already published, and its practical value has been proved on many occasions. The London and South-Western Railway Company acted very generously towards the patient, the general manager placing a guard's van at his disposal, a precedent worthy of imitation by other railway companies. The total cost of the transit amounted to twelve shillings only. It will be seen, therefore, that the

safe and easy conveyance of patients can be carried out at the present time without either complicated machinery or the fear of incurring a prohibitive cost—no small boon to the poor, who naturally at the end of their days feel strongly the attraction of the love of home.

PROFESSOR HLAVA ON TYPHUS.

PROFESSOR HLAVA has published in a Bohemian medical journal an account of a severe typhus epidemic which raged in Prague last year. Altogether about 400 cases occurred, of which forty-five proved fatal. Professor Hlava was able to make observations on the blood of most of these. He found in many of them a special microbe, which he regards as a streptococcus, existing in the blood; and the same microbe was found in two instances in the blood of patients during life, but it was never detected in the intestines. When cultures of this micro-organism were injected into rabbits they became feverish, but the affection was evidently of a totally different character from typhus fever in the human subject. It is therefore not possible to say whether or not this streptococcus is the cause of typhus. Regarding the way in which infection is transmitted, Professor Hlava is disposed to think that it is not through the air or by means of water that the disease spreads, but rather by direct contact. A very sad case presented itself in support of this opinion. One of the pathological assistants who had a wound contracted the fever and died, probably through contact with morbid specimens of organs from the bodies of patients dead from typhus.

THE SANITARY STATE OF WINDSOR.

THE President of the Local Government Board, who last year instructed Dr. Airy and Mr. Arnold Taylor to report on the sanitary condition of Windsor, recently requested the inspectors to revisit the Royal borough, with a view of seeing how far the defects, to which attention was originally directed by THE LANCET Commissioners, and which were subsequently reported on to the Local Government Board, had been remedied. We understand that a fresh report as to the progress made will shortly be submitted to Mr. Ritchie; and that in the meantime the inspectors have recommended to the authority such modification of their arrangements for the isolation of the infectious sick as will secure the proper separation of small-pox cases from proximity to pavilions containing patients suffering from any of the other infectious fevers.

PREVENTION OF CRUELTY TO CHILDREN.

THE Leeds branch of the Society for the Prevention of Cruelty to Children has, during the short term of its existence, afforded evident proofs of its energy in the work to which it is devoted. At the first annual meeting, held on the 20th ult., it was stated that 144 cases of cruelty had been dealt with, including for the most part such offences as brutal beating, kicking &c., and starvation. The total number of children relieved was 249. One of the most satisfactory points brought out in the annual report was the fact that in a large majority of instances admonition alone was found to have exercised a salutary effect in checking the abuse of parental privileges, and legal compulsion, though applied when required with some severity, had been relatively infrequent. It had also been found that where prosecutions had been instituted the moral and deterrent effect of such proceedings in the neighbouring districts had been very great. Attention was particularly drawn to the evil of employing children as hawkers on the streets during the proscribed hours, and it was asserted that police supervision as regards this particular abuse was still far from

efficient. A suggestion was made that this part of the work might advantageously employ the energies of a specially appointed inspector. Notwithstanding a moderate deficit in the funds required for current expenses, the influence of the Society is evidently growing, and the tone adopted by the various representative townsmen who spoke on this occasion leaves little room for doubt that the energy thus early exhibited will be maintained in further vigorous and useful action.

HOSPITAL REFORM IN BIRMINGHAM.

IN accordance with the decision arrived at by the meeting of medical practitioners resident in Birmingham and vicinity (reported in our issue of the 23rd ult.), a deputation, headed by Dr. Wade, accompanied by the hon. secretary, Mr. Marsh, waited upon the Mayor of Birmingham on the 4th inst. for the purpose of requesting his co-operation in arranging for the holding of a conference to make an impartial inquiry into the alleged abuses in hospital management, and to discover the proper remedies. Dr. Wade reviewed the steps which led up to the deputation, and suggested that such an inquiry, to be exhaustive and not unduly protracted, could only be conducted by a small number, and he thought a committee appointed by the conference would be satisfactorily constituted if it consisted of a chairman (perhaps the Mayor, if he would act), and one representative of each of the following bodies: The Hospital Saturday Fund, the Board of Guardians, a lay administrator of one of the large hospitals, a lay official of one of the special hospitals, an honorary officer from one each of these two classes of institutions, a medical man unconnected with the charities, and a layman selected by his worship. The Mayor expressed his willingness to call a conference to discuss the whole matter thoroughly, and it was agreed that the conference should be summoned for Wednesday, Jan. 15th, at 3 P.M.

UNIVERSITY COURT ELECTIONS IN GLASGOW.

A MEETING of the General Council of the University of Glasgow was held on Wednesday, Nov. 27th, for the purpose of electing three assessors to sit in the University Court, as provided for in the recently passed Universities (Scotland) Act. Six candidates were duly nominated and seconded, and, on a show of hands, the voting was found to be as follows:—Dr. Hector C. Cameron, 128; Sir John Neilson Cuthbertson, 122; Mr. David Hannay, 120; Sheriff Guthrie, 81; Mr. Vary Campbell, 78; Dr. McVail, 66. A poll was demanded, and voting papers will therefore be issued to all members of Court at once.

ZENANA MEDICAL WORK IN INDIA.

THE accounts which reach us from time to time of the medical missionary work among the native women of India continue to show satisfactory progress, the old barriers of prejudice, religion, and caste being gradually broken down before the steady, persistent, and devoted work of those who have left the comforts of their English homes, and all that the word "home" implies, to labour among their less fortunate sisters in India. A large field offers itself in India for female medical practitioners, and we can imagine no nobler task for those ladies who have taken up the study and practice of medicine than the attempt to alleviate the bodily sufferings of the helpless native women of India, who are not allowed to be attended to by medical men. That this veritable missionary work often claims its victims is unfortunately too true, and we are grieved to hear of the death at Srinagar, after a short illness, of Miss Fanny J. Butler, L.K.Q.C.P.I., at the early age of thirty-nine. Miss Butler left England for India in 1880, where, as medical

missionary of the Church of England Zenana Missionary Society, she toiled for six years and a half at Bhagalpore, Bengal, and Calcutta. Latterly Miss Butler was stationed at Kashmir, doing good work; patients came to her for treatment in large numbers; and greatly owing to her energy a site had been procured and a Women's Hospital commenced at the time of her death.

THE DESTRUCTION OF REFUSE AT BRADFORD.

DESTRUCTORS for refuse have for some time past been in use at Bradford, but they have not sufficed for the destruction of all the house and other refuse which is produced in the town, and the proposal to erect additional furnaces has been opposed on account of some nuisance attending the use of the existing ones. In order to deal with this each furnace has now been fitted with "Jones's cremators" and "Horsfall's injectors," by means of which an increased blast has been obtained and the temperature raised from 500° to 900° F.; the "stuff" being continually burned at a white heat. The alteration has been mainly brought about by the efforts of Alderman Hardaker, chairman of the Sanitary Committee; and, on inspecting the results, it was found that all objectionable odour had been removed; there being, amongst other things, a complete cessation of the emission of noxious vapour by the chimney-shaft. Indeed, it was confidently felt that success had been attained, and that other towns were sure to follow in the wake of Bradford in this matter of the disposal of refuse, which is year by year becoming more and more pressing. Formerly all market refuse, including vegetables, putrid fish, and the like, was disposed of in the same way as the general refuse, but it caused nuisance; it is now taken to one of the destructor stations, passed through grinding mills, mixed with ashes, and converted into a manure, which farmers are allowed to take away without payment.

THE KNEE REFLEX.

DR. K. E. WAGNER contributes to the *Vratch* a lengthy paper containing an account of a number of observations he has made on the subject of the tendon reflex of the knee. He finds that in slight and moderate cases of fever the tendon reflex is as a rule diminished, but that as the fever passes off the reflex returns to normal, or, may be, becomes stronger than normal. In severe cases, however, where there is a good deal of excitement, the knee reflex is increased. Generally speaking, it may be said that the amount of knee reflex is a kind of index to the tone of the nervous system. Baths from 77° to 90° F. given to fever patients increase both the knee reflex and the muscular strength. Walking to such an extent as not to occasion fatigue also increases the reflex. Sleep and lying in bed, Dr. Wagner found, decrease the reflex and also the muscular strength.

THE POLLUTION OF THE AIRE.

A PRELIMINARY attempt has been made to deal with the serious and vexed question of the pollution of the river Aire, a conference having taken place at Leeds between the mayors and town clerks of Bradford and Leeds and the chairman of the Sanitary Committee of Leeds. The special object of the gathering was to see whether such friendly and concurrent action could not be undertaken by the two corporations as would avoid hostile controversy and litigation. In the end, it was decided that on the reconstitution of the sanitary committees of each borough the respective mayors should communicate to those bodies certain proposals which had been provisionally arrived at. If these should meet with general concurrence, a more formal

meeting would be arranged with a view to secure the acquiescence of other local authorities whose districts border on or otherwise affect the river. We trust that this desirable attempt to rid the Aire of its grave state of pollution may meet with success.

ENGLISH PRACTITIONERS IN FRANCE.

No reasoning will suffice to make the conduct of the French Government appear justifiable in requiring English medical practitioners, practising among their own countrymen in French territory, to pass French examinations—not even that of "M.D." in a letter recently published by a contemporary. There is no such narrowness in England, and we do not agree with "M.D." in thinking that English practitioners would start legal processes against French medical men practising in England under any circumstances analogous to those under which English practitioners practise in French resorts. English legislation is the first, as far as we know, to make honourable and generous international recognition of medical diplomas possible. The Republic, with its boast of liberty and brotherhood, should be before and not behind England in such a matter. What are liberty and brotherhood worth if they do not lead to the abolition of territorial and international jealousies among scientific and professional men of equal standing?

THE BRITISH PHARMACOPŒIA.

It is satisfactory to note from the report of the Pharmacopœia Committee of the General Medical Council that, in spite of the shortcomings of the British Pharmacopœia of 1885, only 559 copies remain of the 29,000 which have been printed, and that in determining upon issuing a reprint, it has also been decided that an "addendum" should be prepared and issued in the course of next year. There will, undoubtedly, be much interest in this addendum, even though it has been recommended that "no new remedies are to be introduced into it except such as have met with general approval." This clearly expresses an earnest desire to restrict the addendum within reasonable limits, and it may be hoped that it will not lead to the resuscitation of remedies which have long been discarded. It is late in the day to criticise the Pharmacopœia of 1885, but still it may be remarked that it retained and reintroduced many substances which have long since passed from the realm of practical therapeutics.

THE HOUSING OF THE POOR.

AN important circular signed by Mr. Ritchie has been issued from the Local Government Board to the local authorities in the metropolis, and to urban as well as rural sanitary authorities, calling their special attention to the ample powers conferred upon local authorities by the Housing of the Working Classes Act (1885), the Nuisances Removal Acts, and other statutes, to remedy the evils caused by insanitary dwellings, to prevent houses being overcrowded in such a manner as to be prejudicial to the health of the inmates, and to secure the demolition of buildings which are either themselves unfit for human habitation or which, by reason of their situation, are the cause of other buildings being rendered insanitary. The word "nuisance" includes "any premises in such a state as to be a nuisance or injurious to health," and "any house or part of a house so overcrowded as to be dangerous or prejudicial to the health of the inmates." If, after due notice, a nuisance is not abated, the offender or offenders can be taken before justices, who are invested with large preventive and punitive powers. It is the duty of the medical officer of health to report in writing to the local authority any premises in his district offending against the Sanitary Acts.

The report should then be referred by the local authority to a surveyor or engineer, for the necessary action to be taken. The circular concludes by warning the local authorities of the grave responsibility which they incur if they neglect the duty cast upon them by the Legislature of exercising their large powers for the protection of the poor, who are unable themselves for the most part to enforce the observance by their landlords of the laws relating to public health.

THE HOSPITAL SUNDAY FUND AND NURSING ASSOCIATIONS.

THE Council of the Hospital Sunday Fund did well to refer the proposal of Canon Clarke to alter Law IV. to the General Purposes Committee. Canon Clarke would add district nursing associations to hospitals and dispensaries for participation in the Hospital Sunday Fund. It sounds very plausible that nursing associations should receive grants from a fund raised essentially for the benefit of the sick poor. But to make such an alteration of the law will be to take a new departure altogether, not likely to contribute to the peace and prosperity of the Fund. Nursing associations, unlike hospitals, are largely sectarian and denominational in character, some of them aggressively so. Apart from this feature of these associations some of them are further characterised by much mutual rivalry. There are few men who have studied the working of the Hospital Sunday Fund more closely, or advised it more wisely, than Sir Sydney Waterlow, and he seldom allows himself to speak in such strong tones of warning as those he used at the last meeting of the Council on this subject, as we report elsewhere. We entirely agree with Sir Sydney Waterlow, and we trust that Canon Clarke will not persist in pressing his resolution on the general meeting of constituents. Nurses, as a part of the hospital system, benefit by the Hospital Sunday Fund; but to extend the fund to nursing associations as such is to invite an indefinite number of motley institutions to share the Fund and to diminish its strength for the great purposes for which it exists. The Fund will not bear the attenuating process which Canon Clarke proposes to initiate, and the very attempt to apply it would endanger that harmony which has hitherto been the glory of the Hospital Sunday Fund. We shall be greatly surprised if the General Purposes Committee does not report against this proposal.

TUBERCULOSIS OF THE OVARY.

DR. WAGNER gives in the *Vrachs* notes of a number of post-mortem examinations on phthisical patients collected with a view to ascertain the frequency with which the tuberculous process extends to the ovaries. He puts this at 5 per cent., and remarks that when the ovary is attacked the only parts that are found to be abnormal are those which are actually invaded by the tubercle. He was able to obtain cultures of Koch's bacilli from tuberculous ovaries. Frequently when no tubercular foci could be detected by the naked eye they were discovered by the microscope.

VACCINATION BY THE VICAR.

AT Eaton Bray, a village in South Bedfordshire, a parishioner, who believed in vaccination, but feared the dangers which he thought accompanied it, procured a supply of lymph for himself, and got the vicar to operate. The public vaccinator, Mr. Sandell of Leighton Buzzard, expressed himself willing to see the case and certify if the Board approved of his doing so. The Board have agreed. We should have thought vicars had enough on their hands without undertaking the duties of the public vaccinator.

CLAIRVOYANT "PHYSICIANS."

THE monthly bulletin of the State Board of Health of Connecticut, U.S., reports that the Supreme Court of Wisconsin has held that a "clairvoyant physician" is liable for failure to exercise the ordinary skill and knowledge of a physician in good standing practising in the vicinity, and not merely the ordinary skill and knowledge of clairvoyants. The decision in question rules that any professing medical expert who "accepts employment as a healer of diseases, but relies for diagnosis and remedies upon some occult influence exerted upon him, or some mental intuition received by him when in an abnormal condition, takes the risk of the quality of accuracy of such influence or intuition." This legal decision affords a singular commentary upon the condition of so-called medical practice in some parts of the United States. The State in this country takes no such care to protect those who may choose to consult "clairvoyant physicians," if there be any such practitioners in these islands.

TYPHOID FEVER IN THE STOCK EXCHANGE.

A LARGE number of cases of enteric fever is reported to have occurred among members of the Stock Exchange, according to a statement in a contemporary not less than thirty members having been attacked. The medical officer of health has presented a report, in which he states that the cause was not to be explained by any faults in the general sanitation of the building, and that there was a very strong presumption in his mind that these cases of fever might have had their origin in the noxious exhalations arising from the sewer ventilating shaft. The circumstances of the outbreak are not before us, and we have not, therefore, the material which would enable us to discuss it. We are of course familiar with such occurrences in relation to polluted milk or water-supply, conditions which, we have no doubt, have been fully considered. An outbreak of fever due to sewer emanations raises questions of so much importance in relation to our system of sewer ventilation that the report of the Streets Committee, to which the subject has been referred, will be awaited with interest.

THE DETECTION OF IRON IN ORGANIC TISSUES.

PROFESSOR ZALÉSKI of Tomsk observes that in order to detect the presence of iron in organic tissues these should be immersed in a solution of yellow sulphide of ammonium—watery or alcoholic,—of the strength of from 1 to 3 per cent., for from two minutes to half an hour. A dark colouration will then be obtained if there is only a small quantity of iron present, and a black one if there is much.

INSECTS IN DRUGS.

AT a meeting of the Chemists' Assistants Association some rather disquieting specimens were lately exhibited, demonstrating the existence of "insects and germs" in sundry pharmaceutical preparations and drugs. The first was a fair-looking sample of crushed linseed recently obtained from a large wholesale firm, and kept in a wooden cask with a wooden cover. The exhibitor gravely asked what would be the effect of applying a poultice containing "thousands of insects" to an open wound, especially if the poultice be made with hot instead of boiling water. The other specimens, from aconite root, nux vomica, and cantharides, are perhaps of less importance, as these substances are not employed in the crude state. In the present anxiety to detect microscopic germs and to render them innocuous, it is worth considering whether we are not in

danger of overlooking more obvious sources of infection. In the hunt for small deer a different lens is employed, and mental vision is thrown out of focus for larger game.

DESTRUCTION OF A FEVER HOSPITAL.

WE have learned with regret that the fever hospital which had been provided jointly by the Rochester and Chatham urban authorities has been destroyed by fire. The hospital was a comparatively new one, which had been erected on approved modern principles, and the loss must be a severe one. We trust, however, that it will be temporary only, and that the buildings were fully insured against fire. The removal of the sick was attended with difficulty, a number of them having to be lifted through windows broken for the purpose; but, with the aid of medical men from Chatham and Rochester, and of others who hurried to the spot on receiving news of the catastrophe, they were all safely housed a short time after the occurrence.

UNIVERSITY OF SYDNEY.

WE understand that Mr. W. Anderson, F.R.C.S., Dr. Johnson Symington, and Dr. H. St. John Brooks have been nominated by the British board of selection as candidates for the Challis Chair of Anatomy in Sydney University. The final selection, however, will be made by the University authorities, who will consider the claims also of any candidates who may apply to them directly from Australia or elsewhere.

THE GASTRIC JUICE IN SCURVY.

DR. BOTKIN, jun., writing in the *Ejenedlnaya Klinicheskaya Gazeta*, states that according to his observations the gastric juice is considerably altered in cases of scurvy—its general acidity, as well as the amount of hydrochloric acid, being lowered, and in severe cases there being sometimes a complete absence of free hydrochloric acid and also of pepsin. The quantity of ptyalin in the saliva appeared to be decreased. No abnormality could be detected in the movements of the stomach.

MEDICINE IN CHINA.

THE Medical College for Chinese at Hong Kong is evidently doing good work in instructing the native students in medicine. It is in charge of Mr. Cantlie, F.R.C.S., late of Charing-cross Hospital as Dean, and there is a full staff of English lecturers and about thirty students. We have recently seen the examination questions in anatomy and physiology, and they are quite up to the average standard of our examinations. Several candidates obtained 80 per cent. of the allotted marks.

ALLEGED DEATH FROM SULPHONAL.

THE *Medical Record* of New York (Nov. 23rd) reports a death after the use of two fifteen-grain doses of sulphonal, the doses being given an hour and a quarter apart. The fatal result, it is said, occurred, by apnoea, forty hours after the first dose.

FOREIGN UNIVERSITY INTELLIGENCE.

Beirut.—Dr. Boyer of Lyons has been appointed to the chair of Therapeutics and Hygiene.

Florence.—Dr. F. Coppola of Messina has been appointed Extraordinary Professor of *Materia Medica* and Experimental Pharmacology.

Gratz.—A new and convenient building has long been wished for, but has hitherto been unattainable from lack of funds. Now, however, the sum of £80,000 has been voted

for the purpose, and the new buildings will be commenced in the spring.

Greifswald.—In view of a recent order requiring all medical officers of the German Army to be able to ride, a riding school has just been opened in order that students may have facilities for obtaining the required instruction and practice.

Halle.—The Professorship of Surgery, vacant by the death of Professor Richard von Volkmann, is likely to be offered to Dr. Schede of Hamburg, who is a native of Halle.

Lisbon.—Dr. R. da Gama Pinto has been appointed to the newly created chair of Ophthalmic Surgery.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following eminent foreign medical men are announced:—Dr. Don Gabriel Pereda, Professor of Pathology in the University of Madrid; Dr. Julius Graetzer of Breslau; Dr. Richard von Volkmann, Professor of Surgery in the University of Halle, whose life and professional career are sketched in another column.

THE report on the composition and quality of the metropolitan water-supply during the month of October, by Messrs. Crookes, Odling, and Meymott Tidy, shows that of the 189 samples examined the whole were found to be clear, bright, and well filtered. Throughout October the supply of water to the metropolis continued to be of excellent and very uniform character. In respect also of its clearness, its degree of freedom from colour tint, and its minute proportion of matter oxidisable by permanganate, the October water-supply has well sustained the satisfactory character presented by the supply of the previous month. Dr. Frankland, in his analysis, states that taking the average amount of organic impurity contained in a given volume of the Kent Company's water during the nine years ending December, 1876, as unity, the proportional amount contained in an equal volume of water supplied by each of the metropolitan water companies and by the Tottenham Local Board of Health was: Kent, 1.1; Colne Valley, 1.6; Tottenham, 1.7; East London, 1.9; New River, 2.1; Chelsea, 2.8; West Middlesex, 3.0; Lambeth, 3.1; Grand Junction, 3.2; and Southwark, 3.7.

AT the last meeting of the Society of Antiquaries, on Nov. 28th, Dr. John Evans, F.R.S., President, in the chair, Henry Laver, Esq., M.R.C.S., F.L.S., of Colchester, was admitted as a Fellow of the Society, to which he was elected nearly two years ago. Amongst the many learned antiquarians of this country there are very few who have more worthily won the coveted and honourable title of F.S.A. than Mr. Laver, and we congratulate him on receiving so distinguished a recognition of his long and earnest labours in archaeological research.

ENERGETIC MEASURES are being taken in Italy, under the new sanitary code, for the detection of unsound food and the punishment of its vendors. Within the month of November, in Rome alone, 58,839 chilogrammes of tainted edibles were seized, among them being 30,457 chilogrammes of rotten fruit, 9600 putrid portions of sheep, 5876 chilogrammes of other similarly decomposed mutton, and 1788 of beef, 3586 chilogrammes of vegetables, and 347 of mushrooms.

THE Royal Commission on Vaccination held a sitting on Wednesday, Lord Herschell in the chair. Dr. Cory, Director of the Animal Vaccine Station, Lamb's Conduit-street, and Dr. Charles Creighton were examined.

THE Prefect of Rome has announced by circular to all the syndics of the provinces that the Istituto Antirabbico, or institution for the treatment and prevention of rabies on the Pasteur system, is now in full working order under the direction of Professor Angelo Celli.

HERBERT W. PAGE, M.C. Cantab., Surgeon to St. Mary's Hospital, has been appointed an additional examiner for this term for surgical degrees at the University of Cambridge.

DENGUE FEVER is reported to be spreading in Greece, and at Athens more than 2000 persons are laid up with it.

Pharmacology and Therapeutics.

RANKIN AND BORLAND'S SENNA PODS.

THIS preparation we have found to give very satisfactory results. It is readily taken, and appears to be very efficient and thoroughly free from griping properties. In several cases of chronic constipation it has afforded sufficient relief. No difficulty has been experienced in administering this preparation to children.

LANGAARD ON CHLORALAMIDE.

Dr. Langaard of Berlin reviews in the *Therapeutische Monatsschrift* the present state of our knowledge of the action of chloralamide—one of the latest of the various hypnotics that have from time to time been recommended to the notice of the profession. According to most observers, the new drug is a less powerful hypnotic, weight for weight, than hydrate of chloral. Kny considers that 3 grms. of the amide is only equivalent to 2 grms. of the hydrate. The ordinary dose for healthy adults may be put down as from 30 to 45 grains. Women and delicate patients should be given decidedly smaller doses than strong men. According to Lettow's observations in Professor Mosler's clinic, the best way to give it is as an enema. Sleep comes on in from half an hour to three hours after the drug has been taken. Lettow found the time required to induce sleep was in twenty-nine cases one hour; in twenty-three cases, two hours; and in three cases, three hours; the duration of the sleep being four to six hours in seventeen cases, two to four hours in two cases, and two hours only in two cases. Chloralamide shows itself to the best advantage where the sleeplessness is of a purely nervous origin, but it is by no means useless in numberless cases where there is some definite affection—that is to say, if it be not accompanied by pain of too severe a character. It will, however, act when the insomnia is due to the lightning pains of locomotor ataxy, also when there is a moderate amount of cough, and in a number of mental affections which are not accompanied by any very considerable degree of excitement. It has proved serviceable in delirium tremens; and in one case of cardiac asthma—myocarditis due to arteriosclerosis—Hagen and Hüfler believed that it produced a real amelioration of the disease. There is very little to be said as to any undesirable by-effects; as a rule these are very slight, and are confined to a feeling of drowsiness and fatigue, with headache and giddiness of slight amount and short duration; but, notwithstanding the belief entertained by most writers on the subject that chloralamide is devoid of all action on the respiration and circulation, Dr. Langaard was able to demonstrate, by a number of careful experiments on animals, that it makes the respirations shallow and diminishes the arterial tension, though more slowly than chloral hydrate. He therefore cautions medical men to be very careful in prescribing it in cardiac affections. It is best ordered an hour or more before going to bed, and may be taken as a powder, washed down with milk, water, or coffee, or in solution with syrup, or it may be dissolved in wine or beer.

BROMOFORM IN WHOOPING-COUGH.

Dr. Stepp, who some time ago reported considerable success in the treatment of whooping-cough by means of bromoform combined with spirit and syrup, has lately written another paper in which he gives his experience of

the use of bromoform in a fresh series of cases, bringing the total number in which he has used the drug up to 100. Although many of the patients were very young infants, the treatment did not fail in a single case, nor was there any instance in which any disagreeable effects followed its employment. He now finds that the best way of prescribing it is alone in a teaspoonful of water, with which it does not mix, but falls to the bottom in the form of a button. Care must be taken that this button is really swallowed, and not allowed to remain in the mouth. When given in this way children take it readily enough, though when ordered in the form of a mixture they sometimes greatly dislike it. As to the quantity to be ordered, Dr. Stepp states that to a child of three or four weeks old he gives one drop three or four times a day, to children of two or three years old four or five drops three or four times a day, and to children of seven years of age as much as six or seven drops three or four times a day. The vomiting very soon stopped, and recovery took place in from two to four weeks. In consequence of the volatile nature of the substance, and of its tendency to decompose, it is advisable only to order a small quantity from the chemist at a time—say, forty-five drops. It is also needful to see that the liquid has not any red tinge showing the presence of free bromine. The nurse must be cautioned to keep it from sunlight, and to put the stopper in the bottle immediately after use.

ACETATE OF LEAD IN PNEUMONIA.

Professor Crocq of Brussels has found that a remedy which was formerly a good deal employed in pneumonia, but which has long fallen into complete disuse—viz., acetate of lead—is in many cases of great value. This remedy was prescribed, combined with opium, by Ritscher, and afterwards by Strecht, Leudet, and others. Nothnagel and Rossbach mention it in their handbook, but consider that it is useless in ordinary cases, though they recommend it where there is œdema of the lung and in the hæmorrhagic form of the disease. Professor Crocq, having prescribed the lead salt in a large number of cases, is convinced that it frequently reduces the heart beats as much as ten or fifteen per minute in a single day, and that it exerts an equally marked effect upon the temperature, the sputum, too, becoming less in quantity and less deeply tinged. Instead of producing constipation, it is far more likely to open the bowels; but, notwithstanding this action, there is no objection to prescribing it with a little opium in cases where diarrhœa is present, or, if preferred, trisnitrate of bismuth may be added instead of opium. Small doses are of very little use, the minimum quantity that should be ordered for an adult per diem being six grains, and this may sometimes be increased with advantage to as much as fifteen grains. This treatment may be continued for a fortnight without any symptoms of lead poisoning presenting themselves. Professor Crocq remarks that it may be given at all stages of the disease, but at the beginning in strong subjects, and when the pain is severe, its action is but slight, and so antimonials are to be preferred at that time. Where, however, resolution is delayed, where there is but little fever, where the patient is very weak, where there is enteritis or diarrhœa, and especially where the digestive organs will not tolerate antimony, acetate of lead is very valuable. Again, when the pneumonia is secondary to some other serious disease, and when the heart is acting insufficiently so that the pulmonary circulation is interfered with, as in Bright's disease, in organic affections of the heart, in drunkards and in old people, acetate of lead will sometimes work wonders; indeed, he considers that it is most valuable in serious cases. Of course it must sometimes be combined with alcohol.

HEMOGLOBIN IN CHLOROSIS.

In a recent number of *Merck's Bulletin* three formulæ are given for the employment of hæmoglobin in chlorosis and anæmia. It is stated that the chemical form and combination in which iron exists in hæmoglobin is thought to be such as to make the iron particularly easy of assimilation; hence, the use of hæmoglobin as a chalybeate or iron-bearing medicament has been attempted in cases of disease where an atonic condition of the digestive tract impedes the assimilation of medicines. A special virtue of hæmoglobin is said to be that it does not cause constipation. On the other hand, it is worth remembering that the proportion of iron in hæmoglobin is very small, and that it is currently held that, when the colouring matter is not enclosed in the corpuscles, it is speedily eliminated from the system.

RECOLLECTIONS AND IMPRESSIONS
(MEDICAL, HYGIENIC, AND GENERAL)
OF THE
PARIS EXHIBITION OF 1889.

BY BENJAMIN WARD RICHARDSON, M.D., F.R.S.

(Continued from p. 1078.)

THE hygienic part of the Exhibition covered a large surface so to say, for practically it was to be seen in some detail everywhere. No fact was more remarkable than this proof of the advance of sanitation. The idea of health, with one or two conspicuous omissions, was omnipresent. The exhibitors of fabrics for clothing put health often before fashion, or combined the two, or made the fashion in some cases subservient to the health. The manufacturers of articles used in manual labours and in mechanical labours were charged with the same idea; and even amongst the ruder crafts—such as that of the blacksmith (a department of craftsmanship which was well worth finding out, but which did not appear to be very much sought after)—there were some healthy improvements, especially in regard to furnaces and the construction of bellows, in both of which labour and time were saved and cleanliness secured.

Of necessity the model dwelling-house played its part in the show, several specimens of small model dwellings for the poorer folk having been built for inspection. To the industrious poor themselves these exhibits were, I think, not so fascinating as they once were, and as they are expected by the philanthropic world still to be. A change is coming over the minds of the masses in this respect, which is one of the most obvious signs of the democratic spirit of the age. The intelligent workman prefers now to look at the better-class house in which his more fortunate neighbour luxuriates rather than at the mere comfortable little cottage in which the bare necessities are ministered to and nothing more, and in which the sanitation, however perfect it may be in its way, is always staring the occupant of the dwelling in the face as if it were ever reminding him of the blessing of health which he is permitted to enjoy if he will only take advantage of it. So in these small model houses the work-a-day lookers-on did not express any exceeding content. They did not feast their sight on much beyond what they had got. They could afford to come to the Exhibition, many of them from long distances, and, as may be supposed, they found in these models nothing very novel, and often nothing better than that which, with many warm recollections, they had left behind them. It may be said that the visitors to the Exhibition were not exactly the class for whose benefit and instruction these buildings were erected, and that the models were rather intended to show to philanthropists generally how much sanitation could be concentrated on the smallest possible plot of ground in the smallest possible area enclosed in four walls, and with the fullest range of appliances for putting the largest family into the most limited cubic space compatible with healthy existence, and with some approach towards moral comfort. If this argument be admitted, it was not in the present case very successfully demonstrated. I certainly should not have allowed the models I saw an inch of ground in Hygeiopolis. I could discover no model that strictly deserved the name, or any improvement of architectural construction that deserved the credit of useful novelty. The rooms were small in all cases, were placed at awkward angles to each other, were not too well lighted, were bare of chaste decoration, were not specially well provided with the essential system of warming combined with ventilation so that the heat from the fires could be thoroughly utilised, and were not properly studied in respect to the roof so as to prevent the roof surface from absorbing any amount of heat during the summer and radiating any amount that may be artificially generated within the dwelling during the winter. In one cottage the whole of its surface in the upper floor was thrown into a large bedroom for the smaller members of the family, the long-pointed angular roof over their heads leaving nothing between the sleepers and the sky except a thin tile or slate lined with a case of wood not much thicker in substance; in fact, just the kind of roof which is most

treacherous and most dangerous. There was, however, a good thing in the fitting of one, at least, of the so-called model dwellings, a fitting which would bear introduction into any house, large as well as small, and that was a fire-stove extremely simple of construction and economical in application. This stove, of rather elegant shape, was made of iron, and stood out some three feet from the chimney or flue with which it was connected by means of an iron pipe running from it at right angles into the flue. The stove was fed with fuel from the top, the fuel itself being coal in the form of dust, and above the stove passing along the upper surface of the iron pipe which extended into the flue there was a broad iron shelf on which plates and dishes could be put or any other kitchen utensils holding water or foods that required to be kept warm. Two bars on each side were convenient also for holding extra supports and for other purposes. This, described to me as a cottage stove, with a few more additions for an oven and a boiler—additions which could easily be adapted—would form a really excellent stove, applicable specially to small dwellings, and admitting of introduction into houses of large size.

I spoke in my last paper on the subject of the ambulance and the mode in which it was furnished with surgical appliances. It may be well to refer now to what may be called the hygiene of the ambulance system as represented in the latest great public exhibit in this department. I had the advantage of going through the department in company with my friend Dr. Danford Thomas, the able Coroner for Central Middlesex, who has paid great attention to the ambulance system in our country. We found a great many things here of practical moment, and much that was suggestive to the student and young practitioner of the Army Medical Service. There was one ambulance ward which was particularly suggestive as to the mode in which, under the emergencies of military service, beds could be improvised on which to lay the wounded. One bed or litter was exhibited made of trusses of straw with sheeting on the top and blankets and coverlet. Another framework for a bedstead was constructed out of rough wood-work—literally sticks—but so simply and firmly joined together as to become a really strong and convenient couch. In a third instance the frame was formed out of rough wood such as might be taken out of a timberyard or out of the railings of a common fence, and in this case a more workman-like structure was produced. In a fourth illustration the construction was carried out with materials of better quality, and in a manner much more like a framework from the hand of the carpenter or upholsterer. But in every instance the work was seen to be of a kind which any skilful hospital orderly could have carried out under the direction of the army surgeon, or by the surgeon himself if he had no assistance. The whole picture formed an excellent object lesson, which might with every advantage be introduced into our great medical schools and centres of medical learning. In another ambulance tent the different modes of placing the foods and medicines required by the sick or wounded were well displayed. In one the table holding these requirements was placed at the head of the bed, resting, in fact, on the framework at the head. In a second, the table was fixed at the foot of the bed, and a third at the side. It seemed to me that the position at the head of the bed was the most convenient and wholesome. The table was most out of the way in this position, the food was furthest removed from sources of impurity, and everything was within easy reach of the patient who was able to move and help himself, as well as of the nurse who might be in attendance.

In regard to the ambulance tent itself, there was little novelty. The material was of the ordinary quality of cloth stuff made as waterproof as possible, according to our present means of obtaining waterproof stuffs, but suggesting at the same time the necessity for considerable improvement in the manufacture of a lighter and easily portable material for temporary hospital purposes. In some of the ambulance tents (two of them, if my memory is correct) a ventilator was carried out ingeniously by the interposition of a kind of interspace curtained off in the angle of the roof. Into this space valvular openings permitted the air from the body of the tent to rise, and from the roof of the tent itself this air was permitted to escape by another and separate series of openings. The idea was to ventilate without creating draughts of air that would affect the patients. The admission of fresh air was mainly through the doors of the tent, but other openings

were also provided. The lighting, artificially, was by means of the mineral oil lamp, suspended from the cross-bars of the roof or from a central pole support, and the arrangements for cooking or warming foods, carried out in one corner or side of the tent, were fairly complete. On the whole, the ambulance system here represented, although good, was not by any means ideal, to which criticism it will perhaps be said that it was as good as could be expected in a time of actual warfare when everything must needs be rough and ready. That, to my mind, is bad teaching, and bad provision for necessitous periods, a badness which has too often been acted upon, and always with results of the most disastrous nature when it has been put to proof. It seems common sense itself that, when emergencies are foreseen, the time has come, not for those emergencies to be left to answer for themselves in the rough-and-ready way in which they are too often left, but for making the most careful provision and provision to meet all emergencies with all the modern appliances of the most advanced art. I mean by this that the greater the emergency the readier should have been the best means for meeting it and for relieving the difficulties that may spring from it.

METROPOLITAN HOSPITAL SUNDAY FUND.

A MEETING of the Council of the Metropolitan Hospital Sunday Fund was held in the "Long Parlour" at the Mansion House on Friday, Nov. 29th, at 3 P.M., some thirty or forty gentlemen being present, including Sir Sydney H. Waterlow, Bart. (vice-president), Canon Fleming, Canon Ingram, the Rev. Dr. Allon, the Rev. E. E. Jenkins, M.A. (ex-president of the Wesleyan Conference), Mr. Alfred Cohen, and Mr. R. B. Martin. Letters regretting inability to attend were read from the Bishop of London, Mr. Alfred Willett, F.R.C.S., the Rev. Septimus Hansard, M.A., Professor Marks, Captain Arthur Palliser, the Rev. Joseph Toulson, and others. A resolution adding the name of Sir James Whitehead, the late Lord Mayor, to the Council was carried unanimously and amid cheers. The annual general meeting of the constituents of the fund was fixed for Wednesday, the 11th inst., at 3 P.M. Sir Sydney Waterlow moved the adoption of the report, the main features of which were published in our issue of last week. It was, he said, very satisfactory to find that the sum raised this year was the largest ever received. For that they were greatly indebted to Sir James Whitehead, and he felt quite sure that the present Lord Mayor would be equally anxious to achieve an equal success during his mayoralty. Although no large legacies had been left to the fund, the increased collections were a satisfactory feature, and he trusted that they would continue steadily to progress to the £100,000, which sum represented the annual needs of the hospitals. He was glad to say that no serious complaints had been received as to the distribution of the fund, and all the recipients appeared satisfied. Some applicants, after due investigation of their claims, had been refused participation in the distribution for good and adequate reasons. The Rev. Canon Fleming in seconding the motion, said that the growing results of the Hospital Sunday collections were largely due to the efforts of the clergy, and he felt sure that those efforts would not be relaxed. The report was unanimously adopted. The secretary, Mr. Henry N. Custance, read a long letter from the Rev. Canon Erskine Clarke, Vicar of Battersea, giving notice of his intention to move at the forthcoming meeting of constituents a resolution in favour of admitting district nursing associations to a participation in the distribution and benefits of the fund, and asking the Council to lend their support to his proposal. Law IV. of the constitution of the fund reads as follows:—"Those hospitals and dispensaries only which are managed by a committee duly constituted, and which produce their printed reports with balance sheets duly audited for the last three years, shall be allowed to participate in the Fund." The Rev. Canon Clarke will move to add after dispensaries the words "and district nurses' associations." The Rev. S. B. Burnaby, Rector of Hampstead, and several other reverend gentlemen having spoken in favour of the suggestion, Sir Sydney Waterlow rose and pointed out that the acceptance of the proposal would

seriously alter the whole constitution of the fund and would extend its scope and open the door to such an extent that the Council would be unable to close it in the face of the many similar claims which might and probably would be urged. The Hospital Sunday Fund had prospered because it was undenominational, and everyone knew that the various nursing institutions stood on quite a different footing from the hospitals and other medical charities which now participated. He begged and warned the Council to be careful before they introduced what might become an element of discord and difficulty into their work. After some further discussion, it was resolved to refer the subject for consideration to the General Purposes Committee. It was decided to recommend to the constituents that the first Sunday after Trinity, June 8th, should be Hospital Sunday next year, Canon Fleming expressing the opinion that it was about the best Sunday they could choose. The meeting concluded with a vote of thanks to the Lord Mayor, who, in reply, stated that nothing should be left undone by him to make the fund a success during his year of office.

THE EPIDEMIC OF INFLUENZA IN ST. PETERSBURG.

DURING the last three or four weeks an epidemic of influenza, which has assumed serious proportions, has been raging in St. Petersburg and some of the suburbs and neighbouring towns—Peterhof, Gatchino, and Cronstadt amongst others suffering severely, while up to the date of the last information Tsarskoë Selo had escaped. In the schools of all grades from a quarter to a half of the pupils and teachers have been absent; the military hospitals, too, are so crowded that many of the men have to be treated in the barrack rooms, and the ordinary drill is seriously interfered with. Business is carried on but very partially, owing to the number of principals and employes who are laid up. The medical men—that is, those of them who are so fortunate as to have escaped—are "run off their legs," and the chemists are doing a thriving trade, chiefly in the sale of quinine to the public, who have largely come to understand the value of that drug in influenza. It is stated that one pharmacy of moderate size sold as much as a pound of quinine in two days. Dried raspberries, too, are reported to be so much in favour that it is now impossible to procure any. In order, apparently, to make up to the public for the difficulty of procuring medical attendance, the lay press has taken upon itself to instruct the uninitiated in the medical aspects of influenza. Thus, one of the first of the daily journals gravely states that influenza is liable to be complicated with pleurisy, eczema, bronchitis, pulmonary phthisis, nephritis, otitis, catarrhal pneumonia, vaginitis, scabies, lymphadenitis, and soft chancre!

It is impossible to say how far the affection has spread by actual contagion. In some families only one member has been attacked, while in others every member has succumbed one after another. The period of incubation appears to be two days, and that of invasion a few hours only. This is marked by lassitude, headache, and rigors, and is followed by great prostration, weakness, articular pains, headache, and sometimes by giddiness or various nervous phenomena, such as hyperaesthesia. The temperature rises rapidly; it may be almost as high as 105°, but generally falls quickly, seldom remaining high more than from one to three days. So far as appears at present, there is always some slight enlargement of the spleen to be detected. Three main types of the disease have been distinguished—the purely neurotic, the catarrhal, and the gastric. Cases corresponding to the purely neurotic type are marked by severe neuralgic pains, which might be supposed to betoken the commencement of an attack of pleurisy, while the mucous membrane of the respiratory and digestive tracts is quite unaffected. This form has been very common, and has been at the commencement mistaken for typhoid. In the catarrhal form there is bronchial catarrh, running at the nose, and conjunctivitis, which may either come on simultaneously with the fever or after this has gone down, and which usually lasts for several days after the temperature has become

normal. In the gastric form there is sometimes severe vomiting, lasting for one or two days. With regard to complications which have been noted as occurring during the present epidemic, herpes of the lip and nose has been very frequent, and sometimes has been seen on the eyelids; erythema, roseola, and urticaria have also been seen; meningitic irritation and catarrhal pneumonia, too, are mentioned. The last-named complication has been the cause of the few deaths that have taken place. Many of the cases, on the other hand, have been very slight. Some relapses are reported as having occurred from five to seven days after convalescence; they were marked by a rise of temperature, rigors, and catarrh. The drugs most generally employed are quinine, acetanilide (of which $\frac{7}{8}$ gr. doses are ordered two or three times daily), antipyrin, salicylate of soda, and diaphoretics, which have proved very successful.

It may be remarked that owing to the frequency and severity of epidemics in Russia the disease has acquired the name of "Russian catarrh."

THE METROPOLITAN ASYLUMS BOARD.

At the board meeting of Managers, held on Saturday, the 30th ult., a report of the Ambulance Committee to the General Purposes Committee, having reference to Section 6 of the Poor-law Act, 1889, was considered and its recommendations were adopted. As a result, the carriages belonging to the Asylum managers will be available for the conveyance of persons suffering from any dangerous infectious disorder to and from hospitals and other places, at a charge for each conveyance for the present of 5s., a discretionary power being retained to remit the charge when deemed expedient in the interest of the public health. Any of the following diseases will be regarded as dangerous infectious disorders—viz.: "small-pox, cholera, diphtheria, membranous croup, erysipelas, the disease known as scarlatina or scarlet fever, and the fevers known by any of the following names: typhus, typhoid, enteric, relapsing, continued or periperal;" also measles and such other "dangerous infectious disorders" as from time to time may require conveyance. It is laid down as desirable that a medical certificate setting forth the nature of the disease, and stating that the sufferer is fit to be removed, should be supplied to the Board's officers previously to the patients' removal. Persons may, under exceptional circumstances, be conveyed to or from places outside the metropolitan area, an extra charge being made for the same.

MEDICAL TRIALS.

MASON v. CHEVENS.

THIS was an action to recover damages for libel brought by Mr. W. Inglis Mason, a duly qualified surgeon practising at Sudbury, Suffolk, and also holding the office of parish doctor, against Mr. Chevens, the proprietor, publisher, and printer of a newspaper called the *South-West Suffolk Echo*, which circulates in the neighbourhood of Sudbury. The case was tried before Mr. Justice Cave and a special jury. The evidence showed that on Jan. 6th last a woman named Sharman told the plaintiff that her child was ill, and asked him to attend to it as parish doctor. The plaintiff told her that she must first obtain an order from the relieving officer, who could have been seen by walking a short distance occupying about three minutes. He also informed her that by subscribing 5s. she would be entitled to medical attendance by him for three months under a club system established in the place, which allowed subscribers for a very small sum to obtain medical relief for themselves or the whole family. The woman declined to pay the fee of 5s. and went away. The following day the child died, and the coroner's jury subsequently found that death was due to natural causes. The plaintiff was aware that Mrs. Sharman was living with a weaver, who was earning wages and was a pensioner and in a position to pay for medical advice, and that was his reason for refusing to see the child. The libel complained of was contained in an article published in the defendant's newspaper accusing the

plaintiff of heartless conduct, and the defence was justification, and that the words complained of were fair and *bona-fide* comment. The jury found for the plaintiff, damages £20, and judgment was given accordingly.

THE CHARGE OF INTENT TO PROCURE ABORTION AT SELBY OAK.

The secretary of the Medical Defence Union has favoured us with the subjoined account of this case.

At the last Worcestershire Assizes, a surgeon named Cuthbert was tried for having administered a noxious drug—to wit, ergot—with intention to procure abortion. Mr. Lawson Tait, the President of the Medical Defence Union, attended, with the intention of going into the witness-box as a witness for the defence, but after the prosecutrix had given her evidence, the case was stopped by the judge, it being obvious to everyone that her evidence was altogether fabricated and unreliable, and leaving little doubt that she had sent the ergot through the post to herself before accusing the surgeon. The prosecutrix had been a nurse at the Selby Oak Workhouse, and in that capacity she had had charge of the midwifery department, keeping the key of the surgery, and having the stock bottle of ergot in her possession. It was found that the label of the bottle which she alleged Mr. Cuthbert had sent to her was marked: "Ex. Ergot. Liq.," and it was pointed out that this is a very unusual abbreviation, and that doctors usually from habit write—"Ext." The stock bottle was produced, and the gold lettering on the bottle was found to be identical with the above, the abbreviation being the same in all the three words. The previous history of the woman was demonstrated to have been a very chequered one, and she has since become manifestly insane.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Lambeth.—Dr. Verdon, in the thirty-third annual report on the parish of Lambeth, discusses the question of the sufficiency of inspectors of nuisances in metropolitan districts, and he points out that whereas in one district a population of 9000 is deemed sufficient to demand the services of an inspector, one of no less than 105,000 is not considered too much in another district. Between these two extremes almost every conceivable arrangement is in force. It is notorious that in many London areas systematic and regular inspection is not performed as it should be, and it is quite clear that Lambeth, notwithstanding certain recent and trivial alterations, still lacks much in this respect. An able summary of the results of the Sheffield small-pox epidemic in its relation to vaccination is also submitted to the vestry, together with certain historical references to the subject. The mortality rate is calculated on an estimated population of 281,935, and this gives 18.1 deaths per 1000 living during 1888. The zymotic rate was 2.2 per 1000, the largest fatalities being due to diarrhoea, whooping-cough, measles, and diphtheria, the incidence of the several diseases on locality being indicated by plans, on which the occurrences of disease are indicated by dots. Diphtheria caused 103 deaths amongst Lambeth people, and the question of the origin of this disease is discussed in the report, with the result that Dr. Verdon feels convinced that defective drainage does contribute towards the prevalence of the disease. Half of the houses examined in cases of diphtheria exhibited obvious drain-defects, and we may hope that this proportion is in excess of that which obtains generally throughout the parish.

Holborn.—The general death-rate for this metropolitan district during 1888 was the lowest on record—namely, 16.1 per 1000, which represents a net gain in the year of 10,585 lives compared with the result which would have followed if the previous average rate had prevailed. Diphtheria shows a serious tendency to increase. This is an observation which applies to many urban, as opposed to

rural, populations; and it cannot be altogether due to altered and improved nomenclature. Dr. Septimus Gibbon discusses the question of tubercular diseases and phthisis at some length, with the result that an opinion is expressed adverse to the view that phthisis is solely caused by that which the reporter holds to be its least potent factor or accompaniment—namely, the microbe. The report of the departmental committee on phthisis, appointed by the Veterinary Department of the Privy Council, is also adversely criticised. Current sanitary work would appear to be carried on with some energy in the district, and in a few instances action was taken during the year under Torrens' Act.

St. Luke.—This portion of the metropolis did not compare unfavourably as regards its death-rate last year with a number of the large towns and cities of England, the corrected rate per 1000 living having been 21.54. Diphtheria has somewhat increased, but, apart from this, the more preventable of the zymotic diseases have shown improvement. Attention is given to the slaughter-houses and the cowsheds, and they are described as being in a satisfactory condition. Amongst other improvements more or less affecting public health, Dr. Yarrow mentions the completion of the coroner's court, new mortuary, and disinfecting chamber; and it is noteworthy that since that change was effected none of the 43 inquests that have been held took place at public-houses. This is a piece of experience that some other metropolitan areas may well bear in mind.

Finchley.—This favoured metropolitan suburb had, according to Dr. Turler's report, a death-rate of 12.4 per 1000 last year, the extremes being 9.7 at Church End and 14.9 at North Finchley; whilst the general death-rate for London's outer ring was 15.3. All the more important of the causes of death are discussed in the report, and indications are given as to their prevention. A lengthened account is also given of the sanitary work carried out during the year, both as regards such as is systematic and that which was taken on the occurrence of cases of infectious diseases. Action in this latter respect has fortunately included a first instalment of an isolation hospital; but the inadequacy of the accommodation provided has been shown by the inability to take in diphtheria cases whilst scarlet fever was also under treatment. The slaughter-houses, dairies, and bakehouses are stated to have been subjected to regular inspection.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5167 births and 3477 deaths were registered during the week ending Nov. 30th. The annual rate of mortality in these towns, which had been 18.3 and 18.2 per 1000 in the preceding two weeks, rose last week to 19.0. During the first nine weeks of the current quarter the death-rate in these towns averaged 18.0 per 1000, and was 2.8 below the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 11.6 in Norwich, 13.7 in Portsmouth, 14.1 in Huddersfield, and 14.6 in Leicester. The rates in the other towns ranged upwards to 25.1 in Hull, 27.4 in Manchester, 30.3 in Sunderland, and 32.0 in Plymouth. The deaths referred to the principal zymotic diseases, which had been 342 and 353 in the two preceding weeks, declined again last week to 343; they included 85 from whooping-cough, 63 from scarlet fever, 61 from measles, 51 from diphtheria, 46 from "fever" (principally enteric), 37 from diarrhoea, and not one from small-pox. No death from any of these zymotic diseases was registered during the week in Blackburn, Norwich, or Huddersfield; while they caused the highest death-rates in Bolton, Plymouth, and Sunderland. Whooping-cough caused the greatest mortality in Leeds and Hull; scarlet fever in Sheffield, Bolton, and Plymouth; measles in Nottingham and Sunderland; and "fever" in Leeds, Brighton, and Cardiff. The 51 deaths from diphtheria in the twenty-eight towns included 33 in London, 6 in Salford, 3 in Plymouth, 2 in Liverpool, and 2 in Newcastle-upon-Tyne. Small-pox caused no death in any of the twenty-eight great towns. Only one small-pox patient was under treatment at the end of the week in the Metropolitan Asylum Hospitals, and not one in the Highgate Small-pox Hospital. The number of scarlet-fever

patients in the Metropolitan Asylum and London Fever Hospitals at the end of the week was 1650, against numbers increasing in the preceding twenty-two weeks from 559 to 1620; 132 cases were admitted to these hospitals during the week, against 204, 176, and 152 in the previous three weeks. The deaths referred to diseases of the respiratory organs, which had increased in the preceding five weeks from 281 to 328, further rose last week to 345, but were 118 below the corrected average. The causes of 71, or 2.2 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Newcastle-upon-Tyne, Leicester, Blackburn, Bolton, and in seven other smaller towns; the largest proportions of uncertified deaths were registered in Halifax, Huddersfield, Sheffield, Hull, and Liverpool.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19.8 and 20.6 per 1000 in the preceding two weeks, further rose to 21.0 in the week ending Nov. 30th; this rate exceeded by 2.0 the rate that prevailed during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 15.0 and 17.4 in Dundee and Perth, to 22.5 in Glasgow and 23.1 in Aberdeen. The 536 deaths in the eight towns showed a further increase of 9 upon the numbers in recent weeks, and included 21 which were referred to whooping-cough, 18 to measles, 13 to scarlet fever, 11 to diarrhoea, 9 to diphtheria, 8 to "fever" (typhus, enteric, or ill-defined), and one to chicken-pox; in all, 81 deaths resulted from these principal zymotic diseases, against 64 and 53 in the preceding two weeks. These 81 deaths were equal to an annual rate of 3.2 per 1000, which exceeded by 1.3 the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 14 and 7 in the preceding two weeks, rose last week to 21, of which 4 occurred in Greenock and 3 in each of five other towns. The 18 deaths from measles showed a considerable increase upon recent weekly numbers, and included 13 in Edinburgh and 5 in Glasgow. The 13 fatal cases of scarlet fever, including 6 in Glasgow and 5 in Leith, also showed a marked increase upon the numbers in recent weeks. Five of the 11 deaths attributed to diarrhoea and 4 of the deaths from "fever" were returned in Edinburgh; and of the 9 fatal cases of diphtheria, 4 occurred in Glasgow and 2 in Leith. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 149 and 135 in the preceding two weeks, further declined last week to 121, but exceeded the number in the corresponding week of last year by 29. The causes of 56, or more than 10 per cent., of the deaths registered in the eight towns were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 26.3 and 24.2 per 1000 in the preceding two weeks, rose to 28.7 in the week ending Nov. 30th, and exceeded the rate in any week since the beginning of March last. During the first nine weeks of the current quarter the death-rate in the city averaged 25.3 per 1000, the mean rate during the same period being 17.4 in London and 22.1 in Edinburgh. The 194 deaths in Dublin showed an increase of 30 upon the number in the previous week; they included 11 which were referred to "fever" (typhus, enteric, or ill-defined), 5 to whooping-cough, 5 to diarrhoea, 4 to measles, 1 to diphtheria, and not one either to small-pox or scarlet fever. Thus the deaths from these principal zymotic diseases, which had been 19, 14, and 9 in the three preceding weeks, rose last week to 26; they were equal to an annual rate of 3.8 per 1000, the rate from the same diseases being 1.7 in London and 5.3 in Edinburgh. The deaths referred to "fever," which had been 13, 7, and 6 in the three previous weeks, rose again last week to 11; and the fatal cases of each of the other zymotic diseases exceeded the numbers returned in the previous week. The deaths of infants showed a marked decline, while those of elderly persons exceeded by 8 the number returned in the previous week. Six deaths from violence and 4 inquest cases were registered; and 59, or nearly a third, of the deaths occurred in public institutions. The causes of 18, or more than 9 per cent., of the deaths in the city were not certified.

Correspondence.

"Audi alteram partem."

THE TREATMENT OF CANCER BY ELECTRICITY.

To the Editors of THE LANCET.

SIRS.—In a recent paper in THE LANCET by Dr. J. Inglis Parsons on the treatment of cancer by electricity, he advocates the employment of shocks given by the interruption and reversal of very strong galvanic currents. I cannot help thinking that this mode of treatment is founded on unproven and probably fallacious theories; and is not free from danger to the patients.

Dr. Parsons advocates this mode of treatment on the theory that the low vitality of the cancer cells is extinguished by the sudden reversal of the current, and likens it to the process by which human life is destroyed by electricity. I have before argued¹ that electricity probably does not kill by shocks when administered to lowly organised living material, but only by the effects of shock when administered to highly organised living beings, and when by the shocks acting on the inhibitory nerves and interfering with the rhythm of the heart. It is probable that it is more difficult to extinguish lowly organised vitality by shocks than highly specialised vitality presided over by an elaborate and finely differentiated nervous system. The experiments also brought forward by Dr. Parsons to prove that no change takes place between the poles when a current of electricity is applied to animal tissue have been proved to be fallacious. The experiments referred to are as follows:—"Three glasses were connected together with a stout lamp-wick. Into each of these a standard solution of iodide of potash was placed. A current was then passed through the solution, with an intensity of 200 milliamperes, until the whole of the iodide of potash in the two outer glasses was decomposed. On testing the centre glass it was found to contain as much iodide of potash as before, although in the two outer glasses it was all decomposed." "A second experiment was then tried with water in the outer glasses, and a solution of iodide of potash in the centre. The current was passed as before, but no decomposition took place in the centre glass." Dr. Parsons goes on to say: "these experiments demonstrate in a conclusive way that the passage of a constant current does not cause any decomposition between the poles, although there must of necessity be an exchange of atoms between the molecules."

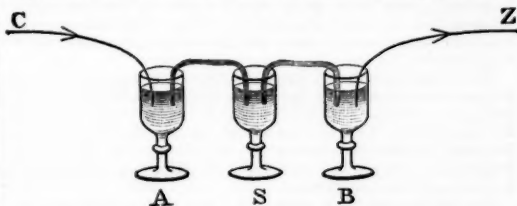
In referring to these experiments before the Obstetrical Society of London on June 21st, 1888, I stated that I had repeated the experiments², substituting pieces of copper wire for the lamp-wick as the connecting media. The copper wire, while being a very good conductor, was also decomposed by electricity. In this case the iodide of potassium was split up in each jar, free iodine appearing at the positive ends of the pieces of connecting wire, and a large quantity of gas (hydrogen) being liberated at the negative ends.

Some interesting experiments are also detailed in Golding-Bird's "Natural Philosophy,"³ to show that changes do take place at other points than at the surface of the electrodes when a current of electricity is passed through several electrolytes.

"The statement that, in cases of electro-chemical decomposition, the changes which take place in the electrolyte are continuous through a line of molecules, and not limited to those in contact with the electrodes, meets with an interesting illustration in the well-known experiment in which an alkali appears to traverse an acid without combining with it, and which has been erroneously regarded as a case of suspension of the laws of chemical affinity.

"Let three cups—A, S, B—be placed side by side and connected by means of pieces of lamp-cotton, moistened with a solution of sulphate of soda. Let A and B be filled with a solution of this salt, and the central cup, S, with dilute sulphuric acid. Let a platinum electrode, C, connected with the last copper cell of the battery, dip into A, and another, Z, from the last zinc plate, dip into B. The

positive current will now enter the fluid in A, and escape from B through Z, traversing S in its course. Electrolysis of the sulphate of soda will take place, its acid with oxygen being set free in A, and the sodium will pass through the sulphuric acid in S and reach B, so that a quantity of free



soda will soon be found in B, the sodium being oxidised at the expense of the water. It is evident that this alkaline body must have traversed the acid in S, with which, indeed, it for an instant combined, and the resulting sulphate of soda being decomposed by the current, the soda ultimately appears in B.

"That in experiments of this kind the base really combines with the acid it is made to traverse is proved by using a salt with the base of which the acid forms an insoluble combination. Under these circumstances it is removed from the influence of the current and does not reach the third cup. Place in A, B solutions of chloride of barium, and in S dilute sulphuric acid. On the current passing, the contents of A are decomposed, chlorine is evolved, and barium set free. This is conveyed in the manner before described to the middle cup, and here it is arrested in its course by the acid which, in combining with it, forms an absolutely insoluble salt, the sulphate of barytes, which falls to the bottom of the vessel, and then neither barium nor its oxide reaches the cup B. Hence the salt chosen for experiment must be one whose base forms a soluble combination with the acid in the middle cup."

It is difficult, in the present state of our knowledge, to say how many secondary electrolyses take place in the passage of the current through the body. That it meets several elements presenting different states of polarity towards each other is certain; but whether chemical change takes place at the points of junction of each of these heterogeneous bodies it is at present impossible to determine. As a rule, electrolysis does take place between any two substances of different electro-chemical polarity at the point where they touch one another, if they are capable of conducting electricity. If, in the treatment of a uterine fibroid, we use an external potter's clay electrode, a water rheostat to regulate the current, and an intra-uterine electrode, we know that electrolysis takes place at four points: (1) In the cells of the battery; (2) in the water in the rheostat; (3) between the clay and the skin of the patient; and (4) at the point where the internal electrode touches the mucous membrane of the uterus. That electrolysis does take place in the tissues is probable from the fact that storage of electricity takes place in a patient subjected to electrolytic treatment. The patient becomes a secondary battery, and is capable of giving off a current in an opposite direction to the one used from the primary battery. This can be demonstrated by disconnecting the rheophores from the battery immediately after an application of electricity has ceased and uniting them to each other, still keeping them connected to the electrodes in contact with the patient; a reverse current will immediately be shown on the galvanometer, at first about twelve milliamperes, but rapidly decreasing to eight and four. No storage of electricity could take place unless some decomposition of the fluids contained in the tissues electrolysed had taken place. The liquids bathing the cell elements of the tissues must become split up, and their constituents accumulated on the opposite surfaces of contiguous tissue cells. It is this only that could produce a polarising current. Becquerel and Faraday have shown that polarisation results from the decomposition caused by the passage of the current.

In the recent discussions on the electrolysis of fibroid tumours it has been asked: If the passage of an electric current has an effect upon the tumour, how is it that the normal structures, such as the bladder, muscles, skin, adipose tissue, &c., which are included between the two electrodes, are not also affected? It is quite possible that they are affected, that in them the normal tissue changes

¹ St. Bart's Hosp. Reports, vol. xix., p. 40.

² Vide Obstetrical Transactions, vol. xxx., p. 291.

³ Pp. 292, 293.

always in progress are accelerated, and that assimilation or "progressive metamorphosis" is encouraged. This from analogy would appear to be the case, for when a galvanic current is applied frequently to an atrophied and palsied muscle very often its nutrition is improved and its bulk increased; and there is no doubt that an increase takes place in the subcutaneous adipose tissue of the abdominal walls in patients subjected to the electrolytic treatment for fibroids.

The theory which Dr. Inglis Parsons first suggested, that the electric current may have a modifying influence on the cells of a tumour, which from their lower vitality could not recuperate themselves so well as the normal cells of the body, is not improbable. In fact, it may be that in the tumours subjected to a current of electricity a "retrograde metamorphosis" is set up.

Dr. Neftel, who is a great authority on the treatment of cancer by electricity,⁴ "is inclined to believe that electrolysis produces remote constitutional effects by altering the condition of the protoplasm of the cells in which the poison of cancer is contained, and by the propagation of which the disease becomes constitutional. As soon as the protoplasm has, by the electrolytic process, lost its specific contagious qualities, the cancer is prevented from reproducing itself, and gradually disappears through the process of absorption."

Electrolysis is no doubt sometimes very useful in cancer, especially in cancer of the uterus, not only to destroy portions of the growth, and thus check the advance of the disease, but noticeably to diminish the pain and hemorrhage so frequently attending it.—I am, Sirs, yours, &c.,
Dec. 3rd, 1889. W. E. STEVENSON, M.D.

A CASE OF PTOMAINE POISONING.

To the Editors of THE LANCET.

SIRS,—Will you be good enough to allow me space to reply to the criticisms on a case of ptomaine poisoning which was kindly read for me in my absence by Dr. Barlow at the last meeting of the Clinical Society, more especially as some of the statements made were allowed to pass without protest? Dr. Sydney Martin is reported in THE LANCET to have said that "all those ptomaines which had been isolated had an action directly opposite to atropine, and no ptomaine was known which acted like that drug;" in other journals the report reads that "ptomaines, which were definite compounds, always gave rise to symptoms the opposite of atropine, and atropine was their antidote." Both statements seem to me to be open to criticism. Zuelzer and Sonnenschein¹ obtained from putrefying meat infusion an alkaloid which had the chemical reactions of atropine, and caused dilatation of the pupil with loss of light reflex, acceleration of the heart, and paralysis of the muscular coat of the intestines. Von Anrep obtained from salted sturgeon which had caused poisoning and from the bodies of those who died of the poison an alkaloid which produced the following symptoms: dilatation of the pupils, dryness of the mucous membranes, retention of urine and feces, laboured breathing, feebleness of the heart's action, considerable pallor of skin and diminished temperature.² In man there were in addition paralysis of accommodation and difficulty in swallowing. I acknowledge that these are not in every respect the symptoms of atropine poisoning, but the resemblance is sufficiently striking to have caused one authority (Dr. Lauder Brunton) to insist on their mainly atropine-like character, and another (Professor Kobert)³ to name the alkaloid "ptomato-atropine." Dr. Lauder Brunton⁴ says: "Most of the alkaloids which have been obtained by the decomposition of albumen appear to belong to the muscarine type, and to have a tendency to cause diarrhoea, although some appear to belong rather to the atropine type, which to a certain extent counteracts the effects of muscarine,"—a statement repeated by Sir W. Aitken.⁵ Moreover, Dr. Brunton⁶ proposes to treat poisoning by a ptomaine having a purely atropine-like action with physostigma, and mentions a case in which this has been done. It is incorrect to say that "all those ptomaines that had been isolated had an action directly opposite to atropine,"

⁴ Vide Medical Electricity, by Dr. Althaus, p. 650.

¹ Berliner Klinisch. Wochenschr., 1869, p. 121.

² Brieger: Ueber Ptomaine, French translation by Roussy and Wurter, p. 63, note.

³ Ueber Fischgift, Schmidt's Jahrbuch, 216 p. 144

⁴ Disorders of Digestion, p. 291. ⁵ Op. cit., p. 287.

⁶ Animal Alkaloids, second edition, p. 57.

or that "atropine was their antidote." Leaving out of consideration the non-poisonous ptomaines, such as neuridine, cadaverine, putrescine, gadinine, and others, which Dr. Martin's statement does not cover, we find many well-defined ptomaines whose action is not directly opposite to atropine. Peptotoxine⁷ causes in rabbits paralysis of the posterior extremities, somnolence, inability to stand, and death. Hydrocollidine⁸ causes in birds tremors, violent convulsions, tetanic contractions, and death. Methyl-gadinine,⁹ extracted from putrid horseflesh, produces symptoms like those of curare. Tetanine and tetanotoxine,⁹ formed in the cultivation of the bacillus of tetanus, cause the symptoms of tetanus. The list might be much prolonged.

To return to my case, the symptoms closely resembled those of atropine and ptomato-atropine poisoning, and it was this resemblance, together with the almost sudden and practically complete recovery on evacuation from the bowel of two putrid-smelling motions, that induced me to describe it as a case of ptomaine poisoning. At the same time I am quite conscious of the gap that exists in the logical proof of this position—viz., absence of any demonstration of a ptomaine. The patient had no sign of kidney disease before his illness, and has had none since. Not only so, but the urine passed after thirty-four hours of suppression, and during the persistence of the symptoms, was free from either albumen or blood. To my mind these facts absolutely negative a diagnosis of uræmia.

I am, Sirs, yours obediently,

C. SCOTT WATSON.

Dec. 2nd, 1889.

"INGUINAL COLOTOMY": A NOVEL METHOD OF PERFORMING THE OPERATION.

To the Editors of THE LANCET.

SIRS,—Dr. Purcell, in his paper on "Inguinal Colotomy for Malignant Diseases of the Rectum," describes an operation as now performed by him, and in the last paragraph he says "this operation was the outcome of deliberations between us"—viz., himself and me, "and I have to thank him" (Mr. Jessett) "for his suggestions, which I was enabled to carry out with the utmost success, and which we have styled 'A novel method of inguinal colotomy.'" As the method I have suggested, and which I described to the Fellows of the Medical Society, differs in many important particulars from that described by Dr. Purcell, I will ask you kindly to insert a description of my operation, which I have called "A novel method of performing the operation." The points in which my operation differs from that described by Dr. Purcell are as follows: 1. I make the ordinary incision through the abdominal parietes, *not a curved incision*. 2. I only clamp the intestine in one place—viz., as high up as I can. 3. I use catgut sutures, not silk, for bringing together the serous coats of the invaginated ends of the divided intestine. 4. I bring the upper or proximal portion of the intestine out of the wound for some three inches, and invaginate the divided end. *I do not fasten the cut ends of the upper segment to the wound*. The three cases described by Dr. Purcell were the first that came into the hospital after I had determined to divide the sigmoid flexure at the time of operating, and *invaginate* the cut end of the lower segment into itself and return it into the abdominal cavity. In operating on these cases Dr. Purcell most kindly carried out my suggestion, which is the only novelty in the operation so far as I had then gone. It was obvious, however, that there were grave objections to leaving the upper end of the intestine open. I determined, therefore, in my next cases to draw as much of the sigmoid flexure out of the wound as I could, divide it about three inches from its origin, and invaginate the cut ends of *both* segments, dropping the lower segment into the abdominal cavity, and leaving the upper segment protruding from the wound to be removed later on. In this consists the novelty of the operation. I showed at the Society a portion of the intestine which I had removed three days after operation, the invaginated end of which was firmly united. I may say the idea of this operation was the outcome of experience gained in my experimental work on intestinal surgery.

The operation as described by me to the Fellows of the Medical Society was as follows:—The patient should have

⁷ Brieger: Ueber Ptomaine, French translation, p. 81.

⁸ Roussy: Revue des Sciences Médicales, tom. xxxi., p. 307.

⁹ Roussy, loc. cit.

only liquid diet—strong beef-tea, eggs, milk &c.—for a week or ten days before the operation. The bowels should be kept well opened for some three or four days before by castor oil or some saline aperient, and the rectum washed out as far as possible once a day with warm water enemata.

Operation.—The abdomen being opened by a straight incision in the usual position, a small flat sponge with a long string attached to it is passed into the cavity to keep the small intestines and omentum from protruding; the index finger of the left hand is then passed backwards along the brim of the pelvis until it reaches the sacro-iliac synchondrosis, when the descending colon will usually be felt dipping into the pelvis; the finger is then passed over the colon, and a portion of the sigmoid flexure hooked up into the wound, and a loop some inches long withdrawn through the opening. A band of indiarubber is now to be passed through the mesocolon and fastened tolerably firmly round the intestine as high up as possible, to prevent the passage of its contents when the intestine is divided. The wound is next packed with small sponges, to each of which a long string should be attached, and the loop of intestine is surrounded with cotton-wool pads soaked in warm and carbolised water. The intestine is now cut across with scissors about three inches from its upper end, and the contents, if any, evacuated, in some cases it will be desirable to wash the gut out with warm carbolised water. All bleeding points being secured, the divided end of the lower segment is to be invaginated into itself and the end closed by a continuous catgut suture passing through its serous and muscular coats. The mesocolon may now be torn downwards for an inch or more if necessary, and the torn edges stitched over with fine catgut suture. This portion of the flexure is then allowed to drop back into the abdominal cavity. The divided end of the upper portion of intestine is next invaginated and secured in place by means of a continuous catgut suture and the indiarubber band removed. All sponges and wool-packing can now be removed and the parts thoroughly washed, and the parietal wound closed in the usual manner, care, however, being taken that the suture just above the intestine should pass through its serous and muscular coats, and the suture below is passed through the meso-colon. Two fine silk sutures are to be passed through the muscular and serous coats of the intestine and the abdominal parietes on each side, so as to thoroughly secure it from slipping. Finally, the spur of intestine, about three inches long, which is left protruding from the wound, is packed carefully round with thymol gauze, the whole covered with a thick pad of cotton-wool and a many-tailed flannel bandage lightly applied. The dressings should not be disturbed for three or four days unless symptoms occur necessitating their removal. On the fourth or fifth day the spur may be cut away on a level with the skin, all bleeding points secured, and the wound dressed with eucalyptus or boracic ointment. One great trouble to be feared in Allingham's operation, and the one I am describing, is the tendency of retraction of the stirrup of intestine when the loop or spur is cut off. I therefore in future shall content myself with opening the spur on the fourth or fifth day, and delay its total removal until some days later. This would have the further advantage of enabling the wound to be kept quite free from contamination from the escaping faeces.

I am, Sirs, yours faithfully,

FRED. BOWREMAN JESSETT.

Upper Wimpole-street, December, 1889.

DR. RENTOUL'S SCHEME.

To the Editors of THE LANCET.

SIRS,—As chairman of the meeting at Bethlem Hospital, referred to in Mr. R. H. S. Carpenter's letter in your last issue, I shall be glad if you will allow me to make some remarks in answer. Mr. Carpenter is mistaken on one or two points. The meeting was one of the South London District of the Metropolitan Counties Branch of the British Medical Association, and was summoned at the instance of the committee of that district for the purpose of obtaining the opinion of members of the district on the proposal of Dr. Rentoul, a course which was subsequently approved by a meeting of the council of the branch. On this occasion no general invitation was issued to the practitioners of the south of London.

The members of the Association were not outnumbered by visitors. There were seventeen members present,

including the chairman and secretary, and only seven whose names are not on the list of the Branch. In reference to the proceedings, I can only say that, as chairman, I was bound by the rules of the district, one of which is to the effect that the chairman shall invite all visitors to express their opinions; but another prohibits voting by any but members of the Branch. It would clearly be against the spirit of that rule to allow any visitor to propose a resolution which he could not support by a vote. Such regulations do not seem to me peculiar to the British Medical Association. No Society or Association could allow its visitors—however free to speak—to vote, and thus control the action of that Society. But I can assure Mr. Carpenter that there was no attempt to hoax anyone, and I quite fail to see how the meeting can be so regarded.

I am, Sirs, yours faithfully,

FREDERICK TAYLOR,

Vice-President of the South London District.

St. Thomas's-street, S.E., Nov. 30th, 1889.

To the Editors of THE LANCET.

SIRS,—The meeting at Bethlem Hospital on Nov. 13th to which Mr. Carpenter refers was a meeting of the South London District and not of the whole Metropolitan Branch, as might be inferred from Mr. Carpenter's letter. As mover of the amendment in favour of Dr. Rentoul's proposals, I wish to point out that it was by no means in the interests of our party that the voting was restricted to members of this Branch of the Association. The chairman and secretary, who both opposed Dr. Rentoul's proposals, were responsible for the enforcing of this by-law of the Branch. For my own part, I thought that it would have been in better taste if the chairman had left this rule in abeyance in case no member insisted upon it. Mr. Carpenter must remember that a by-law of the Metropolitan Branch, while allowing visitors to join in the discussions, forbids their voting.

As a special meeting of the whole Metropolitan Branch will shortly be held, and as the same rule is liable to be enforced, I would suggest that the above by-law should be left in abeyance. I think I can say that there will be no objection to this on behalf of Dr. Rentoul's supporters. As a matter of fact, if anyone present at these meetings chooses to vote, there are never, so far as I know, any steps taken to test the right to do so. No doubt the proposer and seconder of a resolution run the risk of being challenged; and it is certainly irregular for anyone but a member to vote.

As to Mr. Carpenter's sneer at the officials of the British Medical Association, I beg to remind him that they have no power to set aside existing rules of the Association.

I am, Sirs, yours faithfully,

Highgate, N., Nov. 30th, 1889.

HUGH WOODS, M.D.

THE PATHOLOGY OF CHOREA.

To the Editors of THE LANCET.

SIRS,—I trust that you will allow me to reply briefly to some of the criticisms of Dr. Maclagan upon the paper in which I suggested that the clinical associations of chorea point to the possibility of its origin in some temporary overgrowth of connective tissue in the nerve centres. Dr. Maclagan asks what evidence there is that rheumatism is capable of producing increased growth of connective tissue. Of its power of doing so I would quote the subcutaneous rheumatic nodules as standing examples, for they have been repeatedly shown to consist of connective tissue in a state of active growth. Dr. Maclagan adds that few pathologists are likely to endorse the view that the lesions of endocarditis are analogous with those which result in nodule formation; yet this view is supported by the results of microscopic research, and since it was first enunciated by Drs. Barlow and Warner in 1881 has gained wide acceptance. Nor can I see that it is in any way disproved by the so frequent limitation of the endocardial process to the valves, and to certain portions thereof; for although, with all respect to the opinion of Dr. Maclagan, I am not prepared to agree entirely with his views as to the influence of strain, I should be the last to deny that mechanical influences play a very important part in determining the distribution and seat of rheumatic lesions either in the joints or heart. If the clue to the association of chorea with rheumatism lies in the fact that one is a disease of the motor apparatus, the other of the motor centres, we might surely expect to

trace a similar association of chorea with gout and rheumatoid arthritis, in spite of the rarity of these maladies in early life. Unquestionably the undoubted occurrence of non-rheumatic chorea offers a very serious objection to the hypothesis suggested in my paper, if it can be shown that temporary fibrous tissue overgrowth is pathognomonic of rheumatism; but I do not think that it is proved that similar changes are not produced in other diseases, even although they may not result in the formation of subcutaneous nodules in the characteristic situations. In conclusion, I may say that I would not for a moment deny that the hypothesis at present rests upon slender foundations, but I believe that the clinical considerations upon which it is based warrant the suggestion of a line of pathological research.

I am, Sirs, yours faithfully,
ARCH. E. GARROD.
Chandos-street, W., Dec. 2nd, 1889.

"MEAN DURATION OF LIFE."

To the Editors of THE LANCET.

SIRS,—Parkes gives the following formula for calculating the mean duration of life, and at the same time condemns this quantity as a test of the health of the population considered: $\frac{1}{3}$ inverse of death-rate + $\frac{1}{3}$ inverse of birth-rate. This, when the birth-rate equals the death-rate, coincides with the formula quoted by Mr. S. C. Waters—viz., the inverse of the death-rate. The figures in Dr. Corfield's report do not agree with either of these formulæ, so that, as he asserts that he gives the real average duration of life calculated from the death-rate of his district, and not, as you suggested, the average age at death, it would be interesting to know the method used by him. The expression "mean duration of life" is, I hear, avoided by actuaries, but much affected by political and social orators and writers. Nothing puts an audience into a better frame of mind than telling them the mean duration of life has been increased. If it is taken to mean, as Mr. Waters suggests, the expectation at birth, it is essentially yearless, and quite unfit to be employed as a test of health in any particular year. I think two things are necessary in the proper use of figures: that they should be correctly used, and also that no attempt should be made to claim for them a greater precision than the subject admits of. The death-rate itself is acknowledged to be simply a convenient expression for something that gives a rough indication of the health of a district, and any figures arrived at from this basis by means of an approximate formula must be very wide of the mark. The true statement of the case is this. The reciprocal of its death-rate is roughly proportional to the state of health of a district, and is therefore roughly proportional to the duration of life in that district, generally speaking. The expression "mean duration of life" applied to any particular year is scientifically meaningless and misleading to the public.

I am, Sirs, yours faithfully,
T. GLOVER LYON, M.A., M.D. Cantab.
Dec. 1889.

"BLINDNESS BY DISABILITY."

To the Editors of THE LANCET.

SIRS,—You will doubtless be deluged with letters on the subject of Dr. Gowers' communication in your last edition. Dr. Gowers, who is a consummate master of that most difficult instrument, the ophthalmoscope, warmly mentions a case of optic neuritis in chlorosis which, unfortunately, was under the care of a medical man unable to use the ophthalmoscope, and terminated ultimately in blindness. It was a sad case, certainly, and it would appear that the medical attendant was greatly to blame, not in my opinion so much on account of his ignorance of the ophthalmoscope as because he failed to properly treat the chlorosis, the cause of the neuritis, with its suitable and well-known remedy—viz., iron. All physicians and surgeons who specially study the eye and its diseases must every now and then come across the unhappy results of ignorance and incompetence, and I wonder what Dr. Gowers would say to the case of a poor fellow, only forty-seven, who came to see me a few weeks back, totally blind in his left eye, and with the following history. About two years ago he was admitted into a hospital suffering from some form of ulceration of the leg, and whilst in this institution an attack of typical acute glaucoma came on in his left eye, with severe pain and vomiting, and rapid loss of vision; no operation, he

tells me, was ever suggested to him, the eye was treated with "lotion, drops, and caustic," and seven weeks from the onset of his attack he left the hospital with the sight of that eye completely gone, and when I saw him it was in a state of glaucoma absolutum, with the typical glaucoma cup, and to make matters worse, he is suffering from an old injury to his other eye, the sight of which is letters of 20 Jaeger slowly. In my innocence I had thought that every medical man knew of the existence of acute glaucoma, and that iridectomy, done in time, is an absolute specific for it. But Dr. Gowers refers to a wider subject—the instruction in the use of the ophthalmoscope given at the schools, and the number of the men who avail themselves of it. And here I think there is good cause for congratulation. I can myself speak for two schools. Eleven years ago I finished my hospital career in London, having, amongst other prizes, taken the medal for Practical Medicine, and I can safely say I never saw the optic disc all the time; indeed, the student who even possessed such a thing as an ophthalmoscope was a *rara avis*. It was not considered the thing to go into the Eye Department, and I never felt welcome there myself; one always seemed to be intruding, at least so I thought. Later I studied at Edinburgh University, and graduated there, dividing with another the prize given to the most distinguished graduate, and yet, I believe, only on one occasion had I succeeded in catching a hurried glimpse of the optic disc. I mention these facts, not in personal aggrandisement, to show that only a few years ago it was possible to take the highest prizes at two large schools of medicine without being able to recognise an optic disc; yes, or the vocal cords or membrana tympani either. I have fortunately been able to rectify those defects, and, returning and working at both my former places of study under a new régime, I am surprised to find the number of men with a very competent knowledge of the ocular fundus, and it would be impossible, I believe, now to take a prize for medicine at either institution without a good knowledge of the ophthalmoscope, and doubtless, ere very long, men will be unable to graduate at any university in the United Kingdom without being able to diagnose the various common diseases of the fundus of the eye.

I am, Sirs, yours obediently,
S. JOHNSON TAYLOR, M.B., M.R.C.S.
Norwich, Nov. 25th, 1889.

THE MORTON LECTURE ON CANCER.

To the Editors of THE LANCET.

SIRS,—I am pleased to find that Dr. Inglis Parsons has reason to think that his operation may be effective at fewer sittings than I supposed, or even at a single sitting. I am quite satisfied that he has been before me in publishing the opinion that cancer cells escape the control of the nervous system, for I have never published any of my views on cancer; but that these latter are entirely independent, and, more than that, may turn out to be incurable, is what I am equally ready to maintain. I will explain my views, and the processes by which I arrived at them, in a note to the Morton Lecture, when this is published.

I am, Sirs, yours truly,
JOHN MARSHALL.
Savile-row, W., Dec. 2nd, 1889.

OPERATIVE TREATMENT OF FLAT-FOOT.

To the Editors of THE LANCET.

SIRS,—It has been strongly urged upon me that, if I still hold osteotomies for flat-foot to be unwarranted, because unnecessary, I ought not to allow Mr. Hare's paper in THE LANCET of Nov. 16th to pass unnoticed. But I have felt, as I did on reading Mr. Davy's communication to the Medical Society in March last, that if the facts and considerations which, during the past six years, I have repeatedly laid before your readers have not convinced, neither would anything for which I could reasonably ask you to spare me space be likely to do so now. Moreover, I have recently stated at full length, in a published book, my views on the physiology of the feet. Therein I have attempted to prove, among other propositions, these, which I first propounded more than sixteen years ago:—1. The muscles that by their action move the foot and the body upon it, in their action support the arch, which, in early life, they develop. 2. Flat-foot is due to failure of this functional support; renewal of functions in specially active manner will restore the arch. As, however, in my book I

have, as far as possible, avoided all surgical questions, and especially any which involve differences in opinion with eminent surgeons, I may ask permission to state here that I hold as strongly as ever the opinion that osteotomy for flat-foot is rarely, if ever, a justifiable operation, and certainly not in such a case as that described by Mr. Hare, which I do not regard as extreme.

I am, Sirs, yours faithfully,
T. S. ELLIS.

Gloucester, Nov. 22nd, 1889.

AN EXPLANATION AND PROTEST.

To the Editors of THE LANCET.

SIRS,—As the editor of *Truth* has chosen to connect my name with what has been termed the "Clifton Scandal," I must ask you to allow me to state that my acquaintance with Mrs. Smith originated in her bringing her daughter to me for a tumour of the jaw, upon which I operated last March in University College Hospital; that I allowed her to append my name to the perfectly unobjectionable prospectus of her school as a matter of charity, and only after making inquiry about her at Clifton; and that I entirely disapprove of her *modus operandi*, to which I never lent the least support, although my name, together with those of several highly respected clergy and doctors, was printed by *Truth* as if it had been appended to that disgusting document.

I am, Sirs, yours obediently,
CHRISTOPHER HEATH.

Canvish-square, W., Dec. 3rd, 1889.

THE LATE GLASGOW UNIVERSITY GRADUATION CEREMONY.

To the Editors of THE LANCET.

SIRS,—In your last issue an account is given by a correspondent of a disturbance or riot which recently took place among our students, and I see that he repeats a fable current in the local prints that I had my gown torn off my back, while another medical journal adds that I was "roughly handled." Though there is not a shadow of foundation for these statements about myself, seeing I had no gown on and was subjected to no unbecoming treatment whatever, yet it is not to contradict such foolish assertions that I write, but because I feel that these accounts will be read with most painful surprise by our graduates, scattered all over the world, unless they are put at their true value. The whole affair has been most grossly and unfairly exaggerated in the local newspapers, and so far as I saw, the medical students, with a very few exceptions, had no hand or part in the business.—I am, Sirs, yours faithfully,
GEO. H. B. MACLEOD.

Glasgow, Dec. 3rd.

COLOUR TESTS FOR RAILWAY SERVANTS.

To the Editors of THE LANCET.

SIRS,—The method illustrated in your issue of Nov. 23rd, p. 1056, in which Dr. Lediard employs coloured glass is undoubtedly very much better for railway purposes than the coloured wool test. However, an ordinary railway servant's hand-lamp, provided with red, green, yellow, blue, and purple glasses, would be far better than the appliance illustrated. Dr. Lediard appears to use his apparatus in a room; now that being so, the test is practically useless. A man may easily, for instance, see the red light in the doctor's room, but can he see the three or four red lights on the back of a train a mile in front of him?—that is the question. And, further, where there are extra lines of rails a man must be able to know how many red lights there are, and their positions.—I am, Sirs, yours truly,

CLEMENT E. STRETTON,
Consulting Engineer, Asso. Soc. Drivers and Firemen.
Saxe-Coburg-street, Leicester, Nov. 27th, 1889.

A DIET OF LEAN MEAT AND WATER.

To the Editors of THE LANCET.

SIRS,—I have been anxiously looking for some replies to the very interesting question raised by Dr. Herschell's paper in THE LANCET of Nov. 9th. I entirely agree with him that the time has arrived when our views as to animal diet should be reconsidered. For two years past I have been treating obese patients for limited periods on a diet mainly of lean meat and water, and I must emphatically say such a diet is well borne, and is greatly beneficial to the general

health, especially in those cases previously suffering from dyspepsia, and the experience of over 200 cases leads me to think that the diet may be persisted in without any ill effects for long periods together. In most of my cases the average loss in weight was from 2 to 3 st. and 12 in. in abdominal girth. The stored carbon rapidly disappears. The Terra del Fuegians at Westminster, as Dr. Herschell urges, are good specimens of a diet almost entirely confined to lean horseflesh and water, and the all-important questions raised should be fully discussed. I agree with all Dr. Herschell puts forward, but wish to add my mite of experience gained in treating obesity by largely diluted animal food, in order to elicit from some of the well-known men who make dietetics a speciality their views on Dr. Herschell's carefully considered paper.

I am, Sirs, yours obediently,
W. TOWERS-SMITH.

Chancery-lane, W.C., Nov. 23th, 1889.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

A Heavy Day at the Northern Hospital.

BETWEEN 7.39 A.M. and 5.9 P.M. on Monday, the 25th ult., the horse ambulance of the Northern Hospital was out twelve times. The following notes of the cases have been kindly forwarded by Mr. George M. Arkle, the ambulance surgeon. No. 1: W. C—, aged twenty-seven; fractured base of the skull; brought in dead. No. 2: E. F—, aged forty-two; concussion of the brain; admitted insensible. (Both these accidents were caused by falling down ships' holds.) No. 3: J. W—, a male aged twenty; extensive scalp wound and slight concussion of brain, from a fall into a graving dock. No. 4: J. B—, aged fifty-one; two wounds of penis from being struck by a cart shaft, and shock. No. 5: S. S—, a boy aged fourteen; leg crushed between two bales of cotton; sprained ankle. No. 6: T. C—, male aged fifty-six; fracture of os calcis by fall from a scaffold. No. 7: B. M—, female aged sixty-six; bruised legs and side, sprained ankle, and shock, caused by being crushed beneath a falling bale of cotton. No. 8: B. S—, male aged thirty-two; immersion, cut on forehead, and bruised hip, caused by a fall into a dock while drunk. No. 9: J. H— and W. T—, both males, aged thirty-eight and thirty; acute alcoholic poisoning. No. 10: R. D—, male aged twenty-three; compound fracture of arm, for which partial excision of the elbow-joint was subsequently performed. No. 11: E. S—, female aged twenty-four; extensive wound of forehead and nose, wound of hand, with much hemorrhage. No. 12: W. S—, male aged twenty-eight; fractured ribs and severe shock from fall into a cellar. All the above were admitted as in-patients except No. 5 (made an out-patient) and No. 12, who went home against advice. On the evening of the same day an old man was admitted with strangulated inguinal hernia, and herniotomy was performed.

Bequests to Local Hospitals and Dispensaries.

The following bequests will be received from the executors of the late John Farnworth, a former mayor of Liverpool, who died in 1869, and whose widow has recently died:—£1000 each by the Lying-in Hospital and the Northern Hospital, and £500 each by the Royal Infirmary, and the North, South, and East Dispensaries.

Students' Dinner.

The annual dinner of the students of the Medical Faculty of University College took place at the Adelphi Hotel last Saturday. There were about ninety guests, the majority of whom were medical students. Professor Glynn presided, and Professor Rushton Parker responded for the professors.

Increased Prosperity and Intemperance.

In the annual report of the Head Constable for the year ending Sept. 29th last it is stated that "the number of cases of drunkenness has again risen—the usual, though lamentable, accompaniment of increased prosperity." This statement is abundantly confirmed by the number of cases brought before the magistrates on the last few Monday mornings, which has been increasingly more than for many years past. It is also clear that there are fewer unemployed labourers than there were some months ago. It is an unfortunate fact that drink appears to be obtainable

here even in bad times, much more so when they are prosperous; this is probably the case in other large centres of population, and Liverpool, while being no better, is probably not worse than London, Glasgow, or Bristol in this respect.

Liverpool, Dec. 3rd.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle.

THE Newcastle Saturday and Sunday Fund collections for the year have every appearance of presenting a very satisfactory improvement over those of 1888. From the published statements of the committee it is shown that the Church collections have been augmented by nearly £100, and the workmen's gathering by over £500, so that even so far there is an increase of £600 over last year. Much of the workmen's increase is due to the exertions of the honorary secretary of the fund, Mr. R. H. Holmes, who first, and after much labour, induced the adoption of the plan of a systematic collection in the factories of small weekly sums, and this mode of collection has fully justified his sanguine anticipations.—A very successful entertainment and conversation was held last week in aid of our newest medical charity, the Cripples' Home at Wallsend. I am told that over 1000 tickets had been disposed of, and that the use of the hall was given free by Mr. James Deuchar. A very substantial sum is likely to accrue as a result to the charity.

Sunderland.

A very characteristic lecture under the auspices of the Sunderland Students' Society was given last week by the Rev. H. R. Haweis on Cremation.—At Dr. Collie's ambulance class for ladies at Bishopwearmouth, the Duncan Memorial fund was referred to, and it was stated that subscriptions had been received from all classes, ranging from £25 each, from Lord Londonderry and the Earl of Durham, to the shilling of the railway porter.

Durham: Rashness of Miners.

An inquest was held at the Durham County Hospital last week on the body of a miner who died in the institution from the effects of burns. It was shown that the deceased had set himself on fire by placing his pipe in the pocket of his coat, which presently burst into flames, inflicting such severe burns that Dr. Binnie of Brandon ordered his removal to the hospital. The coroner stated that he had known of similar cases before of fatal burns from lighted pipes; notably one where a miner put a lighted pipe into his pocket beside his powder flask, when an explosion took place and inflicted fatal burns about the chest and arms.

Middlesbrough.

It would appear from the statement made at the Board of Guardians that the decrease in pauperism is almost phenomenal. As compared with the corresponding fortnight of last year there is a decrease of 530 in the number of persons receiving out-door relief, and of £58 in the cost, altogether presenting good evidence of prosperous times.—Many will be sorry to hear that the experiment of placing Loch Leven trout in the Park lake at Middlesbrough has failed. About two years ago some 1500 yearling trout were placed in the lake, and to all appearance were thriving, but the conservator reported last week that they had been poisoned, probably from some contamination of the water by chemical refuse. Licences were about to be issued to anglers.

Newcastle-on-Tyne, Dec. 4th.

EDINBURGH.

(FROM OUR OWN CORRESPONDENT.)

The Edinburgh Health Society.

MR. SMITH CLARK, one of the members of a deputation from the Edinburgh Health Society to the Edinburgh Trades Council, was singularly happy in his choice of arguments in favour of a closer union between the Council and the Society. To no one is a clear understanding of the laws of health of greater importance than to the man who depends upon his bodily strength and the clearness of his head for his own maintenance and that of his family.

It is one of the main objects of the Society to promote the advancement and well-being of the working classes generally, by any means which, from time to time, may be deemed advisable; and this deputation was sent to the Trades Council to ask them to interest the working classes still more in carrying out the objects of the Health Society by inducing them, their wives and their families, the various unions and other societies that are influenced by the Council's opinion, to come to the lectures that are given week by week, and also to become members of the Society. Last week the lecture was on Home Sick Nursing, by Miss Musgrove, Superintendent of the School of Cookery and Domestic Economy. It was full of sound advice and common sense, and was highly appreciated. The points on which special stress was laid were: as little furniture in a sick room as possible, good ventilation, supervision of visitors, good organisation, great self-control, and consideration for the patient. In the management of children, warm water and soap; regular, sufficient, but not excessive feeding; confinement to bed, and such-like matters, were insisted on. Other most practical advice as to the kind of bed, the administration of medicines, and the substitutes for poultices, was listened to with the greatest interest by a very large audience.

Extraordinary Graduation Ceremony.

At a meeting of the Senatus of the Edinburgh University, held last Saturday, the degrees of Bachelor of Medicine and Master in Surgery were conferred on forty-five candidates who had been unable to graduate at the August ceremonial. At the same time the degree of Bachelor of Science in the department of Public Health was conferred, after special examination, on nine graduates in medicine. It will be remembered that at the final examinations held last July a certain number of the candidates, who had failed in one subject only, were referred for three months, and were allowed to appear for re-examination in October. Of those so permitted to reappear forty-five were at this time successful in satisfying the examiners, with the result that they have not to spend another year in Edinburgh or some other medical school. Those who were rejected altogether have to take out two qualifying classes before they can again present themselves for examination. This new arrangement is a great boon to those who are just on the border line of the pass. It is certainly a great concession on the part of the University, and as such is highly appreciated.

New University Court Assessors.

At the meeting of the General Council of the University of Edinburgh held last week, Dr. John Duncan, Mr. McKie (Advocate), and Lord Kingsburgh were elected to act, along with Dr. P. H. Watson, as representatives of the Council on the newly constituted University Court. Of these gentlemen, Dr. Duncan and Mr. McKie are spoken of as advanced university reformers, whilst Lord Kingsburgh's accurate knowledge of the New Universities Bill and of the meaning read into the various clauses by the framers of the measure will be of great value to the Court. On Saturday the Senatus Academicus elected, as their additional representatives, Professor Taylor from the Faculty of Divinity, and Professors Sir William Turner and Crum Brown, both from the Faculty of Medicine. Professor Campbell Fraser, of the Faculty of Arts, is the other representative.

The Royal Society

At a general statutory meeting of the Royal Society, held last week, the following members of Council were elected:—President: Sir William Thomson. Vice-presidents: Professor Sir Douglas MacLagan, Hon. Lord M'Laren, Rev. Professor Flint, Professor Chrystal, Dr. Thomas Muir, and Sir Arthur Mitchell, K.C.B. General Secretary: Professor Tait. Secretaries to Ordinary Meetings: Professor Sir W. Turner and Professor Crum Brown. Treasurer: Mr. Adam Gillies Smith, C.A. Curator of Library and Museum: Dr. Alexander Buchan. Ordinary Members of Council: Dr. J. Batty Tuke, Professor Bower, Dr. G. Sims Woodhead, Mr. Robert Cox of Gorgie, Professor Isaac B. Balfour, Professor Ewing, Professor Jack, Professor Jas. Geikie, Mr. W. H. Perkin, jun., Mr. A. Beatson Bell, the Right Hon. Lord Kingsburgh, C.B., and Dr. John Murray. By a resolution of the Society the following hon. vice-presidents, having filled the office of presidents, are also members of Council:—His Grace the Duke of Argyll, K.G., K.T.; the Right Hon. Lord Moncreiff of Tulliebole.

Health Statistics.

In his return to the Public Health Committee for October, Dr. Littlejohn reports a death-rate of 16.36 per 1000 of population. Infectious diseases have been specially rife this year, as no fewer than 531 cases have been reported, and 34 deaths therefrom, of which 30 occurred in the Old Town. This number of intimations was twice as large as in any October for the last five years. Deaths from diseases of the chest numbered 99, from debility 34, measles 275, scarlatina 146, diphtheria 49, and typhoid fever 60. Dr. Russell, in presenting the report, pointed out that in the Old Town there were four times as many cases of infectious diseases as in the New Town, and, further, that the proportion of deaths was ten times as great in the Old Town as in the New—most important facts when taken in conjunction with the insanitary condition of the Old Town and St. Giles' Ward. During the month no less than 14,756 lb. of diseased or unsound meat have been confiscated—6839 lb. from the city and 7917 lb. from the country.

Edinburgh, Dec. 3rd.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

DUBLIN.

Sir William Stokes, M.D.

At a meeting of Convocation of the University of Oxford held last week, Sir William Stokes was selected as Examiner in Surgery to the University. This compliment to an Irish surgeon is one which cannot fail to be very gratifying to the profession in Ireland. Sir William Stokes is Professor of Surgery and Examiner in Surgery in the Royal College of Surgeons in Ireland.

Royal Medical Benevolent Fund Society of Ireland.

A quarterly meeting of the Central Committee was held at the College of Surgeons last week. Surgeon-Major J. B. Gaffney resigned the posts of honorary secretary and treasurer for the Bombay Branch, and Mr. Thomson also resigned similar offices for Dublin. In the room of the latter gentleman, Deputy Surgeon-General Henry King was appointed. Grants having been made amounting to £72 10s. to a few urgent cases, the proceedings terminated.

Rathmines Water-supply.

Professor Tichborne, who has recently examined this water, states that the suspended matter which can be seen in every sample is very objectionable. This suspended matter varies in quantity and quality with the locality. It is not all peat, but largely consists of alluvial sediment—earthy matter carried down by the streams,—some rich in oxide of iron from the pipes and peat. The removal of this suspended matter means much more than making it slightly water. Filtering means the removal of the earthy and unpleasant odour, and also the reduction of the organic nitrogenous matter, a fertile source of danger in summer. It also implies the production of a water-supply which would be constant in quality. Professor Tichborne urges that the filtering beds should be constructed before the summer months set in; and although the winter floods may probably make the supply unpleasant in character, this would be of small importance as compared with the changes which the tepid waters of July may bring about.

Death of Dr. Wm. R. McNab of Dublin.

This gentleman died suddenly on Tuesday morning from heart disease, aged forty-five years. On Saturday last he appeared to be in good health, and occupied the vice-chair at the annual dinner of the Scottish Benevolent Society of St. Andrew. He was Professor of Botany in the Royal College of Science, and was the author of several works on botany. He had a considerable knowledge of fossil plants and delivered numerous lectures on this subject. The deceased was a native of Scotland, but had been settled in Dublin for the past eighteen years.

Queen's College, Galway.

Dr. Augustus Dixon has been appointed Professor of Chemistry to this institution. Dr. Dixon studied under Professor Hoffmann of Berlin, and was afterwards assistant lecturer in chemistry to Dr. Reynolds, Professor of Chemistry, Trinity College, Dublin. The appointment is one which has met with universal approval.

Cork Union Workhouse.

An inspector of the Local Government Board—Colonel Spaight—has recently investigated the condition of this workhouse, and his report will come before the Cork guardians next Thursday. To relieve the present overcrowded state of the workhouse in an efficient manner, and yet at slight expense to the ratepayers, was the problem to be solved, and the suggestions of Colonel Spaight, it is believed, if carried out, will terminate the unsatisfactory and discreditable crowding on the male side of the workhouse and also in the female lunatic division.

Mr. David Turner has been elected resident medical officer to the Royal Hospital for Incurables.

Dublin, Dec. 3rd.

BELFAST.

University Extension Scheme in Belfast.

It has, I understand, been resolved to establish in Belfast a Society for the Extension of University Teaching, similar in its basis to other kindred associations in England and Scotland, and it is hoped that lectures on scientific and literary subjects will begin early next year. These will probably be delivered in Queen's College. The Mayor of Belfast (Mr. Connor, M.A.) and the President of Queen's College are taking a very active part in the movement, and a scheme has been drawn up giving details as to the management of the proposed new society. The lectures will be delivered in the evenings, and it is expected that they will be largely attended by young men who are engaged during the day in business pursuits.

The Royal Hospital.

The quarterly meeting was held on Nov. 25th, and the report read stated that during the past three months there were treated in the hospital 579 in-patients, and 238 medical and 341 surgical cases. During the same period there were 5643 extern cases. At the close of the financial year (Aug. 31st), the debt of the hospital was £1147 10s. 7d. The expenditure for the two months since then has been £1366 18s. 3d., making a total of £2514 8s. 10d. The receipts for the two months have only been £517 15s. 9d., so that on Oct. 31st the debt of the hospital was £1996 13s. 1d., which is a very serious deficiency. For the post of resident surgeon there were two candidates—Dr. W. A. Wheeler and Dr. Gorman. The former, who received 88 votes to 24 for the latter, was elected. There is a strong feeling that it would be much better in these elections to appoint a small subcommittee, selected from the Board of Management and the medical staff, to be the body to elect the medical officers. At present it is necessary even for the post of house surgeon to canvass an electorate of more than three hundred persons.

The Belfast Charitable Society.

From the annual report read at the meeting of the friends of this—the oldest—Belfast charity I learn that with officers and servants there is a total of 179 persons at present in the house. The numbers seeking admission are far in excess of the accommodation in the house. During the past year, Dr. Esler (on going to London) resigned the position of assistant medical officer which he had held for several years, and Dr. Richard Pardon was appointed in his place.

Belfast Medical Students' Association.

The inaugural meeting of this Association was held last week at Queen's College. After a hearty vote of thanks had been given to Dr. O'Neill (the retiring President), Dr. MacKisack was elected in his place. Mr. Fullerton was appointed treasurer, and Mr. H. T. Heron, B.A., secretary.

Lisburn Union Workhouse.

At a meeting of the Lisburn Board of Guardians, held on Nov. 26th, Dr. M. B. Mackenzie was elected medical officer of the Lisburn Union Workhouse, in place of Mr. Samuel Musgrave, resigned. There were seven candidates.

Belfast, Dec. 3rd.

SCARCITY OF MEDICAL MEN IN AUSTRIA.—In consequence of the scarcity of medical men in some parts of Austria, an order has been issued by the Minister of Education that men recently qualified who have come from these localities must return to their homes to practise for a certain number of years unless they are fortunate enough to obtain some Government post elsewhere.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Paris Drinking-water.

THE defective supply of the drinking-water of Paris is still occupying the attention of the authorities. At a recent meeting of the Council of Hygiene, Drs. Chantemesse and Vidal observed that in the month of February, 1887, they had shown the intimate relation which existed between the increase of typhoid fever in Paris and the distribution of the water of the Seine. The researches and observations made since that period showed (1) that in 1889 the relations between these two factors were the same as those pointed out in 1887; (2) that the arrondissements provided with the Seine water had undergone a mortality from typhoid fever three or four times higher than that of the rest of the city, which was supplied with spring water. The practice here consists in distributing the water from the Seine successively to all the quarters, which proceeding is most favourable to the spread of typhoid fever.

Storing Food in Inhabited Rooms.

A writer in the *Gazette Médicale de l'Algérie* calls the attention of hygienists to the danger of eating butter impregnated with dangerous miasmata. Frequently the butter is prepared and kept in inhabited rooms, and sometimes even in rooms occupied by sick persons. Milk also is often kept in the same manner. The result is a contamination by morbid germs. Care should therefore be taken to obviate these grave risks to the public health.

Sugar in Urine.

Dr. Gaube, as the result of his observations, has arrived at the following conclusions, which he has published in the *Gazette Médicale de Paris*. The mean quantity of the normal sugar in the urine during infancy is 1 gramme per litre, 70 centigrammes in the adult, and 80 centigrammes at the age of maturity, per twenty-four hours. Every individual whose urine contains more than these quantities of sugar is, according to Dr. Gaube, in process of diabetic evolution, and the individual whose renal excretion contains less sugar is cachectic.

Myopia in French Schools.

Dr. Motais of Angers has made an interesting communication on the hygiene of vision amongst pupils in the schools and colleges of France. The author asserts that myopia in schools exists in France, as in Germany, in an alarming degree, and will increase if the authorities content themselves with simply formulating certain regulations without seeing that they are properly carried out. Dr. Motais has shown that myopia is not only a question of heredity or of race, but may be acquired, and it then often becomes hereditary. I need not here mention all the reforms advocated in his paper, as the greater part of them have already been pointed out by others who have studied this branch of hygiene. He, however, insists on the necessity of organising inspections in the schools. These inspections, besides being useful in preventing the development of ocular affections, would lead to the discovery of lesions which, taken in time, would be curable.

Pasteur Statistics.

According to the report published in the *Annals of the Pasteur Institute*, there have been treated at that institution from Nov. 1st, 1888, to Nov. 1st, 1889, 1830 persons bitten by rabid animals, of whom 11 have, in spite of the treatment, succumbed to hydrophobia. This gives a mortality of 0.60 per 100. Deducting, however, the number of persons (4) who died during the treatment or in the fifteen days which followed it, the mortality is reduced to 0.38 per cent., which figure is still inferior to that of the preceding years. It has been established that the number of deaths after treatment is becoming more and more reduced. For this year it is 1 per cent., whereas the mortality of cases not treated is less than equal to 15 per cent.

Paris, Dec. 3rd.

THE SANITARY INSTITUTE.—At the meeting on Dec. 11th, at 8 P.M., a paper will be read on "The Disposal of Sewage," by W. Santo Crimp, Assoc. M. Inst. C.E., F.G.S.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

"Antibakterikon."

A BERLIN chemical factory has produced a new kind of ozone water, which is said to be distinguished from other liquids of the kind by its freedom from lye of Javelle, and by its durability. It is to be patented under the name of "Antibakterikon," and is manufactured as follows:—Oxygen gas is made of chlorate of potassium and pyrolusite, and conducted into a pressure gasometer, whence it is sent through a series of so-called Siemens' tubes. With the help of a strong electric stream, produced by a machine similar to that which gives the electric light, a secondary stream is produced in these tubes, which discharges itself slowly but constantly, and converts the oxygen gas into an ozone solution of about 10 per cent. During this process various substances are added to the gas to prevent its evaporating. Dr. Otto Ringk of Berlin, the inventor of this new preparation, declares that it possesses extraordinary sanative virtues, not only producing a good effect in cases of tuberculosis, cholera nostras, typhus, diabetes mellitus, toothache, &c., but also destroying the virus of diphtheria and scarlet fever with absolute certainty. The future will show whether this news be not too good to be true.

The Tetanus Bacillus.

A Japanese physician named Kitasato has recently ascertained a series of important facts about traumatic tetanus in the Hygienic Institute of Berlin University, of which Robert Koch is the head. The first proof that traumatic tetanus is an infectious disease was given in 1884 by the Italian investigators Carle and Rattone, who inoculated rabbits with pus taken from a person suffering from this disease, and thereby produced fatal tetanus. A year later a student at Göttingen named Nicolaier, a pupil of Professor Flügge, made the highly important discovery that there are bacilli everywhere in the ground, which, if introduced under the skin of mice, guinea-pigs, and rabbits, invariably cause traumatic tetanus with fatal result. One year later the Göttingen surgeon Rosenbach showed that Nicolaier's tetanus bacilli are found, in persons attacked by traumatic tetanus, in the tissue where the infection began. It was therefore recognised that the bacillus discovered by Nicolaier is the cause of traumatic tetanus in human beings and animals. The exact study of these tetanus bacilli, however, was attended by many difficulties, chiefly because no one had succeeded in isolating them in pure cultivations, further cultivating them on an artificial nutritive basis, and finally producing tetanus experimentally with pure cultivations, all of which processes the rules of bacteriology require to be carried out with success before the theory of the tetanus bacilli can be regarded as proved even in its main points. Dr. Kitasato has now done this in a conclusive manner. He owes his success to the circumstance that he changed the usual method of cultivation. One of the chief difficulties was that, in order to thrive, the tetanus bacilli must be most rigorously guarded against the access of air. Dr. Kitasato's studies enable him to give a much more exact description of the tetanus bacilli and their way of life than has been given hitherto. In particular, he gives a precise account of the formation of spores. He also states that the destructive power of the tetanus bacillus is not in the least impaired by cultivation.

Professor Hans Virchow.

As already announced by us, Dr. Hans Virchow, a son of the famous pathologist, has been appointed Extraordinary Professor of Anatomy in the University of Berlin. He was born in 1852 at Würzburg, was educated in Berlin, and studied medicine, especially anatomy, in Berlin, Bonn, Strasburg, and Würzburg. His studies were interrupted by the French war, in which he fought for the fatherland as a lad of eighteen. He graduated in Berlin in 1875. His thesis for his degree was a report of a series of microscopic investigations of certain constituents of the ovum, and he chose microscopic anatomy as his special province. The narrower field of this wide province, to which he has devoted and still devotes special attention, is the finer structure of the eye. He has thoroughly studied its

details—the ramification of its vessels, the structure of the humour, &c.—in human beings and in animals. He published the results of these investigations in two essays, entitled, "On the Vessels of the Choroid of the Rabbit," and "Contributions to the Comparative Anatomy of the Eye." Another group of Dr. Hans Virchow's publications belongs to physiology, and relates to the motion and bearing of human beings. They are founded on very laborious observations of persons in action and in sleep, of acrobats, athletes, so-called caoutchouc men, and armless persons. He has taught in Berlin University as private lecturer and as demonstrator since 1884. Before that he was for about seven years assistant to Professor Kölliker of Würzburg. Berlin University now has two ordinary professors of anatomy, Waldeyer and Hertwig, and two extraordinary professors, Hartmann and Hans Virchow. Another of Rudolph Virchow's sons is a chemist, and at present assistant to Professor Liebreich; a third is a botanist.

Case of Blood-poisoning.

A somewhat singular case of blood-poisoning has occurred in Berlin. A woman walked across her room without slippers, and a pin ran into one of her feet. It was pulled out at once, but the foot soon swelled, with most violent pain, and a doctor was called in. He declared it to be a case of blood-poisoning caused by the circumstance that some of the coloured wool of the stocking had got into the puncture. He ordered her to be taken at once to a hospital, where the foot was amputated without delay. The operation was successfully performed, but the patient is not yet out of danger.

Cholera in Western Asia.

A Berlin paper hears from St. Petersburg that cholera is dying out in the provinces of Persia. In Southern Mesopotamia, on the other hand, all over Irak and among the nomads of the Syrian desert, who resist all medical superintendence, the epidemic is raging with great violence. The Persian authorities are executing the quarantine regulations with considerable rigour.

The Dengue Fever.

The dengue fever, the reappearance of which in the Pireus was announced a few days ago, forms the subject of an essay by Professor Zuelzer of Berlin, intended for von Ziemesen's special "Handbook of Pathology and Therapeutics." The first symptoms of the disease resemble those of apoplexy. As a rule, it keeps pretty well within the tropics, and is confined in Europe to the Mediterranean coasts and a part of Southern Spain. It is endemic on the coasts of the Red Sea. According to Vauvray, it breaks out every year at Port Said at the time of the date harvest, and is known there as the date fever. In the height of summer isolated cases have occurred in New York and Philadelphia.

A History of the Prussian Institutions for the Training of Army Surgeons.

Dr. von Coler, physician-general to the Prussian Army, has recently published an essay entitled "The Berlin Institutions for the Education of Army Physicians and Surgeons, their Origin and their Development." The first token of special care for the training of army surgeons in Prussia was the founding of the *Theatrum anatomicum* in 1713 by "the great drill-sergeant of Prussia," King Frederick William I. The idea was suggested to the King by Surgeon-General Hotzendorf. The next step in the same direction was the erection in 1724 of the *Collegium medico-chirurgicum*, which was open to all students of medicine, but accorded certain privileges to those who intended to enter the army. The famous *Pepinière*, an institution intended simply and solely for the training of physicians and surgeons for the army, was founded in 1795; it was the good result of the very sad experience of the Prussian army in respect to the care of the sick and wounded in the wars of Frederick the Great.

Berlin, Nov. 26th.

Obituary.

RICHARD VON VOLKMANN.

RICHARD VON VOLKMANN, one of the greatest of German surgeons, died at Jena on Nov. 28th. He was born at Leipsic on Aug. 17th, 1830. His father, Alfred Wilhelm Volkmann, was a famous physiologist, and held the chair of physiology in the University of Halle from 1843 till 1877. Richard Volkmann studied at Halle, Giessen, and Berlin. He established himself as a private lecturer in Halle University in 1857, and was appointed ordinary professor of surgery and head of the surgical hospital there in 1867. He was with the Prussian army in the wars of 1866 and 1870-71, in the latter of which he accompanied the fourth army corps as surgeon-general. He has always stood true to the University of Halle, which less its brightest ornament in him. When Langenbeck retired to well-earned repose in 1882, the professorship of surgery in Berlin was offered to Volkmann and declined by him. He was a kind of king in Halle. One of his chief merits, probably the greatest of all, was that he was one of the first and most enthusiastic apostles of Lister's method in Germany. He simplified Lister's bandage, showed the application of crimped gauze, introduced chloride of zinc as an antiseptic, created the conception of "aseptic wound-fever," and did all that in him lay to get Lister's method introduced without delay in hospitals and in private practice all over Germany. But it was not only as the eloquent advocate and active propagator of Lister's great reform (which, owing to the less scrupulous cleanliness of German hospitals, was still more salutary in Germany than in Great Britain) that Volkmann gained an undying name; his treatment of diseases of the joints, especially in children, of wound-erysipelas, lupus, and synovitis, and his investigations of the growth, bending, and atrophy of bones and of tumours, especially cancer-tumours, among paraffin workers, entitle him to rank among the great benefactors of mankind. He was at the same time one of the best teachers of surgery, and his lectures on diseases of the joints are regarded as the best treatment of the subject in existence. His name also stands high in the imaginative literature of Germany, and he will long be remembered in non-scientific circles as the author of "Reveries at French Firesides." These poetical effusions were written in the intervals of his hard surgical work in the Franco-German war, and were originally intended for his own children, but have gone through fourteen editions and become the common property of the German nation. He had suffered for several years from a severe affection of the spinal cord. A long stay on the Lake of Constance and journeys in Italy so far restored him that he was able to resume his work in Halle last summer. His work, however, soon proved too much for him, and he had to give it up entirely. Severe neuralgic pains induced him to consult Professor Binswanger of Jena some weeks ago. He had invited the chief German surgeons to meet him in Halle on Nov. 17th to constitute the surgical section for the International Medical Congress that is to meet in Berlin next summer. Notwithstanding the delicate state of his health, he kept this appointment, and took part in the deliberations with his wonted vivacity. On his return to Jena he was prostrated by inflammation of the lungs, and paralysis of the heart suddenly ended his sufferings.

THE SERVICES.

ARMY MEDICAL STAFF.—Deputy Surgeon-General Wm. Cattell has been placed on retired pay (dated Nov. 23rd, 1889).—The undermentioned Surgeons-Major to be Brigade Surgeons, ranking as Lieutenant-Colonels:—Wm. Winslow Tomlinson, vice J. Robinson, retired (dated Nov. 4th, 1889); William Sparks Martin Price, vice W. Temple, V.C., M.B., retired (dated Nov. 7th, 1889).

Surgeon Justin F. Donovan, M.D., has been allowed to withdraw, with a gratuity, from the Service, which he entered in March, 1879. In 1882, while Surgeon of Jamaica Hospital, he received the expression of their lordships' great satisfaction at the display of zeal and devotion to duty manifested during the epidemic of yellow fever at

THE CHURCH OF ENGLAND FUNERAL REFORM ASSOCIATION has lately, through its hon. sec., the Vicar of Westow, York, issued a manifesto in which it complains of lack of funds. The objects of the Society—namely, the minimising of the expense of funerals, and securing throughout the kingdom the use of coffins of a readily-perishable material—are such as ought to commend themselves to the public.

Jamaica; and in 1888 a like expression for the manner in which his duties were performed during his three years' commission at Malta Hospital. Dr. Donovan has been appointed to an important position in the Colonial Medical Service at the West Indies.

ADMIRALTY.—The following appointments have been made:—Surgeon Robert H. Nicholson to the *Swallow*, and Surgeon William H. O'Meara to the *Hercules* (both dated Nov. 29th, 1889); Staff Surgeon Robert Bentham to the *Cordelia*, Staff Surgeon Charles James to the *Caroline*, Staff Surgeon John A. M'Adam to the *Neptune*, Surgeon William Hayes to the *Cordelia*, Surgeon Bassett C. E. F. Gunn to the *Alacrity*, and Surgeon Johnston H. Acheson to the *Rattlesnake* (all dated Dec. 6th, 1889).

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—In consequence of arrangements for alterations to the electric light apparatus, the library of the College will be closed on Tuesday next, the 10th inst., at 3 P.M.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—Mr. James Harry Poland, M.R.C.S. and L.S.A. Lond., Surgeon Superintendent, Queensland Emigration Service, having passed the necessary examination, has been granted the Diploma in Public Health of the College.

FOOTBALL CASUALTY.—During a football match on Saturday last, at Shipley, near Bradford, between Shipley and Manningham Rangers Club, George Flaxington, a Shipley forward, sustained a fracture of the leg below the knee.

NOTTS COUNTY ASYLUM.—At the last meeting of the County Lunatic Asylum Committee of the Notts County Council, an important report was received from the Commissioners in Lunacy, in which the County Council are recommended to build a new County Lunatic Asylum.

SANITATION OF CAIRO.—Mr. Latham, the sanitary engineer specially commissioned to report on the measures necessary to improve the sanitary condition of Cairo, is stated to have recommended 240 miles of sewers and a system costing about half a million sterling.

BEQUESTS.—Mrs. Margaret Baxter has left £100 to St. Joseph's Asylum and £100 to the Royal Hospital for Incurables.—Miss Harriet Saurin has bequeathed £600 to the Convalescent Home, Stillorgan, £250 to the Adelaide Hospital, and £250 to St. Patrick's Home for Nurses for the Sick Poor.

THE HONG-KONG SANITARY BOARD, only recently constituted, with the Colonial Surgeon and the Captain Superintendent of Police as president and vice-president respectively, does not appear to have been of much public utility. The office of coroner has been abolished, and the duties have been transferred to the police magistrates.

ROYAL HULL INFIRMARY.—On Tuesday, Nov. 19th, a most enjoyable concert was organised by Staff Surgeon Alfred Corrie, R.N., for the amusement of the inmates of the Royal Hull Infirmary. A striking feature of the entertainment was that it was purely naval, all taking part in it belonging in some way or other to the navy. At the end of the entertainment the senior consulting surgeon of the institution, Dr. Lunn, proposed a hearty vote of thanks to Staff Surgeon Corrie and those taking part in the concert.

THE PINE TREATMENT OF DISEASE.—A number of representatives of the medical and scientific press assembled by invitation last Tuesday at the Hydro-Therapeutic Institution at Farnborough, on the occasion of the anniversary of the establishment being opened. It is claimed for this institution, the medical officer of which is Dr. Vaudrey, that the system of baths and massage can here be obtained in their entirety, and during the past year many patients have been sent there by their medical advisers. At the banquet in the evening, the chairman, Mr. Nethersole, gave an encouraging report of the progress made, and announced that a new wing would have to be erected for the reception and treatment of patients unable to pay the full fees. Congratulatory speeches followed, and after an enjoyable evening the guests returned to town in a special train courteously provided by the management.

LECTURES AND DEMONSTRATIONS ON OPHTHALMOLOGY.—A useful series of lectures and clinical demonstrations are now in progress in the Newcastle Infirmary for Diseases of the Eye, conducted by Mr. C. S. Jeaffreson. The first lecture, which was delivered on Nov. 9th, was on the Relation between Ophthalmology and General Medicine and Surgery. Dr. Benjamin Barkus occupied the chair, and numerous lantern slides of various diseases of the tendons were exhibited and explained, there being about fifty medical men and students present. The first clinical demonstration took place on Friday evening, Nov. 29th, when many interesting cases were exhibited and explained. The dates of the lectures and demonstrations are given in our advertising columns.

FATAL DISPENSING BY A GERMAN CHEMIST'S ASSISTANT.—A chemist's assistant in Magdeburg has been sentenced to a year's imprisonment for dispensing a morphia ointment instead of a calomel powder for a child, thereby causing its death. The assistant's principal was at the same time sentenced to three months' imprisonment.

A NEW EYE INSTITUTION FOR CHESHIRE.—At the final public meeting held at Altrincham, on Thursday, Nov. 28th, it was unanimously decided that an eye hospital, bearing the title of the Altrincham and District Eye Institution, be opened. The institution is intended to cover the wide area and large population known as Mid-Cheshire. At present no beds will be attached, there being an excellent small general hospital in the town available under certain restrictions. Dr. P. H. Mules, late surgeon to the Manchester Royal Eye Hospital, has been elected medical officer.

HOSPITAL SATURDAY COLLECTIONS, LINCOLNSHIRE.—On Saturday, a well-attended public meeting was held at Gainsborough, to hand over the amount of the Hospital Saturday collection to Canon Hutton, on behalf of the Hospital Board. Mr. James Marshall presided. The Gainsborough Committee had collected £148 14s. 7d., which would be divided between the Lincoln County Hospital and the Leeds Eye and Ear Infirmary. The Sleaford total was £125, and Lincoln £320 18s. Since the commencement of this movement in 1879 the hospital authorities have received by it a total of £5504.

LITERARY INTELLIGENCE.—From a circular that has reached us, it would appear that von Ziemssen's "Handbook of General Therapeutics" is to be issued to the profession by an American firm at a discount of a little over 22½ per cent. from the English price. This edition is not a new translation, but, so far as can be judged from the circular, it is a reprint of the edition in seven volumes issued by Messrs. Smith, Elder, and Co.—We understand that an American edition of the *Nursing Record*, in addition to the ordinary issue, has been commenced, and will be published weekly in New York.

THE HOUSING OF THE POOR.—At the usual meeting of the London County Council this week, the Housing of the Working Classes Committee reported that they had before them the subject of the arrangements which should be made in any buildings which might be erected under the control of the Council for the housing of the poorer classes, particularly as regards the staircases, basement floors, bath-rooms and closets, and the size of the rooms. The committee had repeatedly considered these questions in conference with the medical officer and the architect, and they now submitted suggestions as to all these matters, which were approved and adopted by the Council.

GLASGOW WESTERN INFIRMARY.—At the fifteenth annual general meeting of qualified contributors to this institution held in Glasgow last week, the report, which was adopted, showed that the ordinary income amounted to £15,874 10s. 2d., and the ordinary expenditure to £18,951 3s. 10d., showing a deficit of £3076 13s. 8d., against a deficit in the previous year of £3515 9s. 9d. It was gratifying to the managers to observe that there was an increase in almost every branch of the ordinary income during the past year. The managers still heartily commend to the working classes generally the systematic method of making their contributions now in force in most of the large public works and ship-yards in and around Glasgow. Several speakers urged the importance of a convalescent home being established in connexion with the infirmary, and attention was called to the value of the infirmary as a medical school.

THE BRADFORD INFIRMARY.—On the 15th inst. a meeting of the Board and Visiting Committee was held in the Board-room, for the purpose of considering what further steps should be taken to secure a large addition to the annual subscription list, and also with a view of obtaining donations towards the liquidation of the debt of £2000, incurred by the opening of the new wing to the infirmary in 1885. The Mayor (Alderman S. Feather) presided. After considerable discussion it was resolved unanimously that further efforts should be made in continuance of the work initiated by the Board, and that the Finance Committee be requested to prepare a scheme for a thorough canvass of the town.

PRIZES OF THE SPANISH MEDICO-CHIRURGICAL ACADEMY.—The Spanish Medico-Chirurgica Academy has just announced the subjects for the prizes to be awarded next year. The competition is open to all nationalities, and the essays may be written in English. They must not be signed, but marked with a motto and accompanied by a sealed envelope containing the name and address of the writer, and bearing on the outside the same motto as the essay itself. They must be addressed to the President of the Academy, and must be forwarded to the Secretary, Montero, 22, bajo, Madrid, before Sept. 15th, 1899. The first prize, which is offered by the Academy itself, consists of 250 francs and the title of Corresponding Fellow. The subject is "Have the Modern Discoveries of Physics applied to Medicine advanced the Science of Diagnosis?" The second prize, that of Don Antonio Espina y Capa, consists also of 250 francs and the title of Corresponding Fellow. The subject is "The Limits of Expectancy and the Therapeutic Value of Hygiene in Chronic Diseases of the Stomach."

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

BALDON, FRANCIS J., M.B., C.M., has been appointed Honorary Medical Officer to the Southport Infirmary, vice Dr. A. Jones, resigned.

BRYAN, RICHARD, D.P.H. & L.R.C.P. Lond., M.R.C.S., L.S.A., has been appointed Medical Officer of Health to the Borough of New Romney, Kent.

BOOTH, F., M.B., C.M. Aber., has been appointed Medical Officer of Health of St. Ann's-on-the-Sea, Lanc.

CAREY, BASIL DE B., M.A., M.B. Cantab., M.R.C.S., L.S.A., has been appointed Surgeon to the Hospital and Parish of St. Peter Port, Guernsey.

CHEPMPELL, CHARLES W. T., M.D. Brux., M.R.C.S., L.R.C.P. & S. Ed., L.F.P.S. Glas., has been appointed Surgeon to the London, Brighton, and South Coast Railway Provident Society.

GIRLING, CHARLES J., M.R.C.S., L.R.C.P. Lond., has been appointed Assistant House Surgeon to the Halifax Infirmary and Dispensary, vice Andrew Robertson, M.A., M.B., C.M. Edin., resigned.

HARRISON, A. J., M.R.C.S., L.S.A., has been reappointed Physician to the Bristol General Hospital.

HAWKINS, W. R. T., M.R.C.S., L.S.A., has been reappointed Medical Officer, Second District, Barton Regis Union.

LOCKWOOD, W. M.B., C.M. Edin., has been appointed House Surgeon to the West Bromwich District Hospital.

LOWNDS, J. E., M.R.C.S., L.S.A., has been appointed Medical Officer of the Green Hammerton District, Great Ouseburn Union.

LYNCH, G. W. A., B.A., M.B., B.C. Cantab., M.R.C.S., L.R.C.P. Lond., has been appointed a District Medical Officer in Fiji.

MACDONALD, J. A., M.D., M.Ch., B.A.O., Roy. Univ. Irel., has been appointed Honorary Physician to the Taunton and Somerset Hospital, vice Dr. Alford, resigned.

MACKENZIE, M. S., M.D. Irel., L.R.C.S. Edin., has been appointed Medical Officer, Lisburn Dispensary District.

POWERS, C. H., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant to the Metropolitan Asylums Board, South-Western Fever Hospital, Stockwell, S.W.

PRATT, A. A., M.B., C.M. Glas., has been appointed Assistant House Surgeon to the West Bromwich District Hospital.

PURVES, A. S., M.D. Edin., has been appointed Medical Officer of the Lesbury District, Alnwick Union.

SADLER, M. T., M.D. Lond., M.R.C.S., has been reappointed Medical Officer, Worsborough.

SHARPE, J. H., M.D. Irel., has been appointed Medical Officer of the Huntspill District, Bridgwater Union.

SHIVES, JOHN, M.D. Aber., L.R.C.S. Edin., has been reappointed Medical Officer, Liversedge Union District.

SMITH, TELFORD, B.A., M.D., B.Ch. Univ. Dub., has been appointed Assistant Resident Medical Officer to the Royal Albert Asylum for Idiots and Imbeciles of the Northern Counties, Lancaster, vice F. W. Nielsen, M.A. Cantab., M.R.C.S., &c., resigned.

WHEELER, T. K., M.D. Irel., has been appointed Resident Surgeon to the Belfast Royal Hospital.

WOODYATT, J. F., M.R.C.S., L.R.C.P. Lond., has been appointed Senior House Surgeon to the Halifax Infirmary and Dispensary, vice W. Chamberlain, M.B., C.M. Edin., resigned.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BLACKBURN AND EAST LANCASHIRE INFIRMARY, Blackburn.—Junior House Surgeon. Salary £50 per annum, with board, washing, and lodging.

DISPENSARY, Worksop.—Resident Surgeon. Salary £120 per annum, with rooms, coals, gas, furniture, and housekeeper found.

DONCASTER GENERAL INFIRMARY AND DISPENSARY.—House Surgeon. Salary £100 per annum, with board and residence in the house.

GENERAL INFIRMARY, Northampton.—House Surgeon. Salary £125 per annum, with furnished apartments, board, attendance, and washing.

GORDON HOSPITAL FOR FISTULA &c., 275, Vauxhall-bridge-road, S.W.—An Anæstheticist.

GRANTHAM FRIENDLY AND TRADE SOCIETIES' MEDICAL INSTITUTION.—Resident Medical Officer. Salary £150 per annum and midwifery fees, with residence, coals, gas, and rates free.

LONDON THROAT HOSPITAL, 304, Great Portland-street, W.—House Surgeon.

LOUGHBOROUGH MEDICAL AID ASSOCIATION.—Senior Medical Officer. Salary £200 per annum, with house rent and rates free, £10 in lieu of coal and gas, and a fee of 10s. for each case of midwifery attended.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich-road, S.E.—Junior Resident Medical Officer. Salary £30 per annum, with board, attendance, and washing. The post is tenable for six months, with prospect of re-election as senior.

NORTH-WEST LONDON HOSPITAL, Kentish Town-road.—Assistant Physician.

ST. PANCRAS AND NORTHERN DISPENSARY, 125, Euston-road.—Resident Medical Officer. Salary £105, with residence and attendance.

UNIVERSITY OF EDINBURGH.—Additional Examiner in each of the subjects of Natural History and Clinical Surgery for the next period of office. The salary is £75 a year, with an allowance of £10 a year for travelling and other expenses in the case of examiners not resident in Edinburgh or the immediate neighbourhood.

VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's-road, Chelsea, S.W.—House Physician. Honorarium of £50 per annum, with board and lodging in the hospital. Also House Surgeon. Honorarium of £50 per annum, with board and lodging in the hospital.

YORK DISPENSARY.—Resident Medical Officer. Salary £130 a year, with furnished apartments, coals, and gas.

Births, Marriages, and Deaths.

BIRTHS.

DRUITT.—On Oct. 20th, at Wagga Wagga, New South Wales, the wife of Dr. Lionel Druitt, of a daughter.

SILK.—On Nov. 28th, at Pemberton-road, Upper Holloway, N., the wife of J. Fredk. W. Silk, M.D. Lond., of a son.

SNOW.—On Nov. 30th, at Gloucester-place, Portman-square, the wife of Herbert Snow, M.D. Lond., of a daughter.

THOMAS.—On Nov. 29th, at Weymouth-street, Portland-place, the wife of G. Harley Thomas, F.R.C.S.E., Army Medical Staff, of Sparkford Lodge, Winchester, of a son.

MARRIAGES.

DE MELLO—MACMILLAN.—On Oct. 20th, at the Mission Church, Poona, by the Rev. J. Small, Dr. Cabanis De Mello, to Annabel Macmillan, eldest daughter of Thomas Macmillan, Esq. Australian papers please copy.

MACLEAN—ERKINE.—On Nov. 26th, at Bombay, Surg. Fitzroy Beresford Maclean, son of D. I. Glen, Andrew Maclean, M.D., of Church House, Kew, to Mary Norris, eldest daughter of the Rev. John Erskine, Rector of Wycliffe, Yorks.

M McNALLY—COKE.—On Nov. 5th, at St. George's Cathedral, Madras, by the Venble. Archdeacon Brown, Surgeon-Major Christopher J. McNally, M.D., son of the late C. McNally, Esq., solicitor, of Dublin, to Hester Marion, daughter of W. S. Coke, Esq., D.L., of Brookhill Hall, Derbyshire.

MOORE—MOORE.—On Oct. 11th, at St. Paul's Church, Rockhampton, Queensland, by the Rev. John Hunt, John Irwin Moore, L.R.C.S.L., L. & L.M., K. & Q.C.P.L., Springsure, to Susan, daughter of Thomas Charles Moore, Grosvenor-square, Dublin.

ORD—MERCER.—On Nov. 26th, at Holy Trinity, Bournemouth, by the Rev. Canon Eliot, William Theophilus Ord, M.R.C.S., L.R.C.P. Lond., of Halesowen, Worcestershire, to Elizabeth Louisa, daughter of Major A. H. H. Mercer, formerly of the 60th Rifles, of Lee, Blackheath.

DEATHS.

BARKER.—On Nov. 28th, at Wantage, Walter Rice Howell Barker, F.R.C.S. Eng., aged 79.

CASSON.—On Dec. 1st, at 10, Potter-street, Worksop, Harwood Casson, L.R.C.P. Lond., M.R.C.S.

GARTLEY.—On Nov. 26th, at his residence, South Mall, Cork, Joseph C. R. Gartley, dental surgeon, after a few days' illness, deeply lamented.

GRAHAM.—On Dec. 1st, at his residence, The Albany, Piccadilly, Andrew Graham, M.D., Fleet Surgeon E.R.N., aged 72.

SHAW.—On Dec. 1st, at Thicket-road, Anerley, S.E., James Shaw, F.R.C.S., late Principal Inspector Madras Medical Service, in his 81st year.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

Monday, December 3.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M.
 ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.
 ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
 CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30 P.M.
 ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.
 HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
 METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
 ROYAL ORTHOPEDIC HOSPITAL.—Operations, 2 P.M.
 CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
 UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
 SOCIETY OF ARTS.—8 P.M. Mr. William Jago: Modern Developments of Bread Making. (Cantor Lecture.)
 MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Douglas Powell will open a Discussion on the Diagnosis and Treatment of Aneurysm of the Aorta.

Tuesday, December 10.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
 GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
 ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
 CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
 WESTMINSTER HOSPITAL.—Operations, 2 P.M.
 WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
 ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.
 ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. Arthur E. Nevins: On the Frequent Association of Heart Disease, especially Mitral Stenosis, with Diseases of the Pelvic Viscera, in Women.—Mr. Ed. Roughton: On Blood Tumours (angiomas and angiosarcoma) of Bone.

Wednesday, December 11.

NATIONAL ORTHOPEDIC HOSPITAL.—Operations, 10 A.M.
 MIDDLESEX HOSPITAL.—Operations, 1 P.M. Operations by the Obstetric Physicians on Thursdays at 2 P.M.
 ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
 ST. THOMAS'S HOSPITAL.—Operations 1.30 P.M.; Saturday, same hour.
 LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
 GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
 UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
 ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
 CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.
 HUNTERIAN SOCIETY.—8 P.M. Pathological Evening. Dr. Fowler: Papillomatous Growth of Uvula.—Mr. Rivington: (1) Sarcoma of Foot; (2) Exostosis.—Mr. Openshaw: Malformed Uterus.—Dr. Davies: (1) Sarcoma of Lung; (2) Sarcoma of Kidney.—Mr. Bidwell: (1) Acute Necrosis of the Atlas; (2) Abscess of Sternum and Liver from a case of Pyemia.—Mr. Poland: Carcinoma of the Sigmoid Flexure.
 ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Mr. A. W. Bennett: On the Freshwater Algae and Schizophyceae of Hampshire and Devon.
 SOCIETY OF ARTS.—8 P.M. Mr. H. Trueman Wood: The Paris Exhibition.
 BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Council Meeting at 8 P.M. Discussion on Mr. Lawson Tait's paper on "A Reply to some recent Observations on Ectopic Gestation."—Dr. Benington: A Case of Emaciation Cured by the Use of a Pessary.—Mr. Bowman Jessett: The Surgical Treatment of Cancer of the Uterus. Specimens will be shown.

Thursday, December 12.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
 CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
 UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
 CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA-PARK, E.—4.30 P.M. Dr. Clifford Beale: On Laryngeal Affections in Phthisical Persons.
 OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8.30 P.M. Patients and Card Specimens at 8 P.M. Mr. Treacher Collins: Microscopical Sections of Lens with Epithelium on the Inner Surface of the Capsule, and showing other peculiar Structural Changes.—Mr. Jessop: (1) Aniridia, with Dislocation of Lens; (2) Punctate appearance of Anterior Capsule of Lens; (3) Vacuoles in Lens.—Mr. Tatham Thompson: Note on a case of Hereditary Tendency to Cataract in Early Childhood.—Mr. Tweedy: On the Operative Treatment (1) of Cicatricial Ectropion of the Lower Lid; (2) of Symblepharon.—Mr. Hill Griffith: A case of Primary Tuberculosis of the Iris.—Mr. C. Wray (introduced): On a form of Conjunctivitis.—Mr. Spencer Watson: Osteoma of the Infra-superciliary Region.

Friday, December 13.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
 CLINICAL SOCIETY OF LONDON (at 20, Hanover-square).—Living Specimens at 8 P.M. Papers at 9 P.M.:—Mr. C. Symonds: Nine cases of Thyroid Cysts and Adenomata treated by Excision.—Mr. W. H. Battle: Case in which a Diffuse Aneurysm developed in the Calf of the Leg, simulating Abscess; recovery after removal of parts of the popliteal and tibial arteries.—Mr. W. G. Spencer: Case of Traumatic Aneurysm following a Fracture, dislocation of the spine in the dorso-lumbar region, and presumably connected with the lumbar arteries.

Saturday, December 14.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
 UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, December 5th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuum.	Maximum Temp. Shade.	Min. Temp.	Rain-fall.	Remarks at 8.30 A.M.
Nov. 29	30.23	W.	34	33	46	42	31	..	Foggy
" 30	30.11	S.W.	41	39	47	44	34	..	Foggy
Dec. 1	30.80	S.E.	34	33	53	39	32	..	Foggy
" 2	30.51	S.E.	31	..	46	34	29	..	Foggy
" 3	30.47	S.E.	29	..	46	35	28	..	Cloudy
" 4	30.49	S.E.	34	33	41	38	29	..	Overcast
" 5	30.57	E.	38	36	..	39	33	..	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors." Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication. We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "to the Publisher."

We cannot undertake to return MSS. not used.

THE ST. ANDREWS M.D.

Mr. G. L. Hill.—The degree of Doctor of Medicine of the University of St. Andrews has never been obtainable without examination during the last fifty years at least. In the old times, in company with other universities, St. Andrews did now and then confer the medical degree "on recommendation," as the Lambeth degree is still conferred; but as far back as the date when Dr. John Reid, who died about forty years ago, was Chandos Professor of Medicine in the University medical degrees have never been conferred except after examination—a change which Dr. Reid did not originate, but which he very greatly improved. Under Dr. George Day, who succeeded Dr. Reid in the Chandos Professorship, the examination became more stringent, was made both written and oral, extending over three days, and was in every particular brought up to the same character as that for membership of the London Royal College of Physicians.

C. O. H.—Our correspondent will see, by reference to our report of the proceedings of the General Medical Council, that in future there will be appended to the foot of every licence dated on or after June 30th, 1887, an intimation that the holder is legally qualified for the practice of medicine, surgery, and midwifery.

T. F. M.—The manufacturers are Messrs. Farrow and Jackson, 8, Haymarket, London, S.W. A description of the process will be found in THE LANCET of Nov. 2nd, 1889, page 925, in an article entitled "The Brewers' Exhibition."

Q. E. D. could hardly do better than consult Dr. McVail's work, "Vaccination Vindicated," published by Cassell and Co.

T. G. H.—Our remarks at the foot of a letter signed "Veritas," on p. 1146, will answer the queries of our correspondent.

THE PREVENTION OF EPIDEMIC DISEASE.

To the Editors of THE LANCET.

SIRS,—As milk has been incontestably shown to be the chief, if not the only, article of food capable of producing outbreaks of epidemic disease, I would suggest that every dairyman should be compelled to notify to the medical officer of health of the district the sources whence he obtains his supplies, and that every householder, or his representative, who notifies as to the existence of infectious disease in his dwelling should state the name and address of the dairyman whom the person affected has employed. By such means the medical officer of health would readily be able to see how far and what supply was likely to be the cause of any epidemic outbreak; and he could also at once, on suspicion, examine the sources from which the milk was originally drawn, as well as the dairy that retailed it.

I am, Sirs, your obedient servant,

Surbiton, November, 1889. F. P. ATKINSON, M.D.

THE ABUSE OF HOSPITALS.

Mr. John Weaver (Southport).—We regret exceedingly to be unable to insert our correspondent's letter, but its length precludes the possibility. We give the pith of Mr. Weaver's views, based on an intimate and prolonged study of the working of two provincial hospitals. He thinks the abuse of hospitals by in-patients—in the provinces, at least—to be very slight. He is convinced on this point. In the out-patient department it is very different. Here there is extensive abuse. First, in the way of minor accidents—a source of abuse much overlooked, and of which he has seen hundreds of cases that could quite well have paid a practitioner for attendance. Secondly, by out-patients who can well afford to pay. This form of abuse is growing rapidly, on account of the increasing faith in hospitals. There are few men who, thinking they can benefit the health of their child, for instance, by getting gratuitous medical advice at a hospital, will hesitate as to whether or not they ought to do so. Thirdly, by patients who from their extreme poverty should be on the parish. The majority of these prefer to go to the hospital. The voluntary hospital and the parish medical department compete, and the charitable public pay twice over. Further, home visiting by hospital officials is doing the work of the Poor-law medical officers. As to remedies. The minor accident cases should be investigated after the Manchester Infirmary system, and payment insisted on where abuse is found. In the case of other patients who can afford to pay, they should be prevented from going to the hospitals. In one hospital known to our correspondent a subcommittee sits before the medical officers attend to examine into the fitness of cases. He thinks the working classes resent this mode of inquiry less than that by a paid agent. As to hospital attendance on the pauper classes, the only remedy Mr. Weaver suggests is that of greatly improving the attention they at present receive from the parish, and determining how far down in the social scale the voluntary hospital system should go.

Mr. W. Moore (Stourport) urges that the evil done to the profession by abuse of hospitals is not so great as that done by medical aid associations, which attract highly paid artisans, publicans, tradespeople, farmers, and other persons who hitherto have been in the habit of paying for the medical attendance of private practitioners. Our correspondent seems to have suddenly made this discovery, and not to be aware that it has been shown for years by ourselves and others as a most obvious evil. He points out that such associations generally appoint a young man, a stranger in the neighbourhood, and lower the conception of the value of medical service in the whole neighbourhood. Medical men themselves have to bow to the generally lowered estimate of their work, and cater accordingly. He thinks the only remedy is a combination of the whole profession. Dr. Rentoul should, he suggests, devote his attention more to this aspect of the question, and endeavour to organise the profession to a great combined protest against the evil. He promises soon to send a few practical suggestions. If they are really practical, and reach us in a succinct form, we shall try to give them insertion.

ETHER, CHLOROFORM, NITROUS OXIDE GAS AND ETHER.

To the Editors of THE LANCET.

SIRS.—It is not my intention to open up the vexed question of the comparative safety or otherwise of these drugs as anaesthetics, but merely to give my own personal experience of them. On six different occasions within the past ten years I have unfortunately required the administration of one or other of them. My initial experience was with ether, which was given me in a towel formed into a cone with a sponge at the top. After getting over the choking in the first, and on passing into the second, stage I became so violently delirious that it required the utmost efforts of three strong men to restrain me. I may say that I am a powerful man, and was at the time in training for boxing. The after effects—sickness, nausea, and general misery—I did not get over for quite forty-eight hours. My next experience was with chloroform, which I have had in all four times. It was administered on each occasion through a Junker's inhaler. I quickly went under, and as quickly came to; but the nausea, which lasted from thirty-six to forty-eight hours, was very trying, and exhausted me a good deal. Quite recently I have had to seek the services of a surgeon at another hospital; and when informed in the theatre that it was intended to give me ether, I must say that I dreaded the anaesthetic much more than the surgeon's knife. I was first given nitrous oxide gas to produce insensibility, and then ether was substituted. Altogether I was twenty minutes inhaling the latter. Within a few minutes of removing the ether I was able to answer questions, although I did not fully recover consciousness until removed to my ward, and within an hour I was entirely free from all unpleasant effects of the anaesthetic, and able to partake freely of bread and milk. I may add that on each occasion I was prepared *secundum artem* for the reception of the drug, and the time of inhaling lasted about the same—viz., twenty minutes. Such, shortly, has been my experience, and I need hardly say that I much prefer Mr. Braine's combination of nitrous oxide and ether.—I am, Sirs, yours truly,

Nov. 30th, 1889.

F.R.C.S.

THE MEDICAL WORK OF FRIENDLY SOCIETIES.

The following account, from the *Bournemouth Gazette* of Nov. 9th, of his stewardship by the medical officer of the Poole Friendly Societies' Medical Association is a striking illustration of the way in which one man is made to do the work of three in this arrangement:—

"The Surgery, Mount-street, Poole, Oct. 10th, 1889.—To the Chairman and Members of the Committee of the P.F.S.M.A.—Gentlemen, I have great pleasure in presenting to you my third quarterly report. As I have never been absent from the surgery on a single day during the three months, but have always had the surgery open night and morning, the figures as under represent a correct index of work done:—Prescriptions dispensed, 3638; visits at patients' homes, 776; teeth extracted, 143; candidates examined for membership of various friendly societies, 58; midwifery cases attended, 31; deaths, 19; operations and appliances, 15; vaccinations, 11—total, 4682. The above gives a daily average of nearly 51. The hardest day's work was on the last day of the quarter (Sept. 30th), when 118 was the total. [In one day, 118 patients seen!] Excluding Sundays, the lightest day's work was on Aug. 5th, with a total of 29. During the last five weeks of the quarter the work was unusually heavy, one week alone having a daily average of nearly 72.—I have the honour to remain, yours obediently, W. T. GARDNER ROBINSON, M.D., Medical Officer."

The total receipts of the management account for the three quarters were £433 4s. 6d., which included contributions from friendly societies, clubs, and public members, entrance fees, accouchement and vaccination fees, and surgical goods sold to members. The total expenditure was £376 15s. 11d., which included salaries of *locum tenens*, drugs, preliminary expenses, working expenses, rates, interest, and insurance, the result being a balance—net profit—of £56 8s. 7d. on the three quarters. The Association has now 3136 members—1851 from various friendly societies and clubs, and 1285 public members. They have secured the services during the winter months of an M.D. to assist the medical officer, and they also employ a dispenser. Well might a vote of thanks be passed to the auditors and the hon. secretary. We do not read of a similar compliment to the medical officer. He was a paid servant.

Mr. Endean (Locarno).—The MS. has been received, and is receiving attention.

BRITISH MEDICAL BENEVOLENT FUND.

To the Editors of THE LANCET.

SIRS.—The advent of this spell of cold weather is bringing me numerous letters begging for warm clothing for women and children, and, alas! my chest is empty. I should be truly obliged if some readers of THE LANCET would send me, as soon as they can conveniently overhaul their stores, such articles of underclothing or warm jackets and cloaks, or wraps of any sort that they think would be useful. This does not mean that I do not want men's clothing; on the contrary, everything with any wear, still in it is most welcome and useful.

Will you kindly give this room in your next issue, and oblige.

Yours very truly,

EDWARD EAST, Hon. Sec.

16, Upper Berkeley-street, Portman-square, W., Dec. 2nd, 1889.

AMMONIA IN COCAINE POISONING.

To the Editors of THE LANCET.

SIRS.—In last week's issue of THE LANCET Dr. Golovkoff is reported to have said that the only case in medical literature where ammonia was used as an antidote in cocaine poisoning was one by Dr. Gooding, reported in THE LANCET of 1888, vol. i., p. 394. If he refers to the second volume of the same year, p. 715, he will find another case, in which the symptoms were similar to those described by him. In this case I freely administered the aromatic spirit of ammonia, and the patient quickly recovered and was able to go home in half an hour after the onset of the symptoms. Here seven minims of a 20 per cent. solution were injected. I am, Sirs, yours faithfully,

Stamford-hill, N.

DANIEL MOWAT, M.D. Edin.

THE USE OF THE OPHTHALMOSCOPE.

To the Editors of THE LANCET.

SIRS.—In answer to Dr. W. R. Gowers' letter, published in your issue of Nov. 23rd, p. 1083, wherein he asks, "Has any student ever yet been definitely tested in the use of the ophthalmoscope in the pass examination for a diploma?" I should be glad for him to know that when "up" for my L.S.A. Lond. I was given more than ten minutes' *net* *net* examination on diseases of the eyes, and was also given a subject (with an ophthalmoscopic lamp behind him) and an ophthalmoscope, and was asked to give my opinion as to the condition of the fundus.

I am, Sirs, obediently yours,

A. H. R.

Nov. 28th, 1889.

"A HOUSEHOLD MAN-TRAP."

In reference to our annotation last week with the above heading, Mr. G. Bird, of the Western Iron Works, Lancaster-road, Notting-hill, writes to say that his firm are manufacturing coal-plates to which a self-fastening arrangement is attached, which, unless loosened from beneath, prevents the removal or shifting of the plates.

BACTERIA IN MINERAL WATERS.

DR. G. MÜRGES of Dubuque, Iowa, following the example of Dr. Reindl of Franzensbad, has examined bacteriologically nineteen different varieties of American mineral waters (*Journ. Amer. Med. Assoc.*, Nov. 10th, 1889). He thus sums up the results of his inquiry:—

"1. The bacteria in bottled mineral waters are probably not derived from the spring in the majority of cases, but are due to contamination from the bottles and corks, the cleansing methods now in vogue being insufficient to destroy them.—2. Carbonic acid in a bottled mineral water has a powerful inhibitory influence on the development of germs, whether the gas is natural to the water or has been artificially generated and added to it. When the proportion of CO₂ is 350 cubic inches or more to the gallon, the retarding influence of the gas is very great. It is much less when the proportion is only 250 cubic inches to the gallon. But among every dozen bottles of even the most highly carbonated waters there is at least one which contains more than 250 micro-organisms to every cubic centimetre, and ten even out of twelve bottles may be thus contaminated. When the water is charged artificially, some time may be given for contamination before such charging is accomplished.—3. Sulphuretted hydrogen gas, in the proportion contained in mineral waters, probably has some inhibitory influences on the development of germs, but not to the extent which might be *a priori* expected.—4. As regards freedom from bacterial contamination, most of our native carbonated mineral waters are superior at least to several of the most popular European waters of the same kind.—5. The non-aerated, so-called, table waters are probably very inferior to ordinary hydrant water.—6. The strongly saline non-carbonated mineral waters are so badly contaminated as to be wholly unfit for internal administration in the form in which they are at present put up, unless the germs are previously destroyed by heating (for two hours at 70°C.—Reindl).—7. In order to bottle at least a non-carbonated mineral water in such a way that it will remain bacteriologically pure for an indefinite period, the bottles should first be boiled or steamed, kept in an inverted position in a place free from dust until cool, then immediately filled and closed with boiled corks."

Surgeon.—An F.R.C.S.Ed. is entitled to wear the gown which is the recognised collegiate robe of the Fellowship. When or where is a question which must be left to individual taste.

S.—We have no recollection of a statement of the kind having appeared in our columns.

Mr. J. R. Wallace.—The University of Cambridge, amongst others.

Dr. J. Wilson (Liverpool).—The book is a valuable one.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Bryant, London; Professor Marshall, London; Dr. Steavenson; Sir G. H. B. Macleod, Glasgow; Mr. Macnamara, London; Dr. Cameron Gillies, Brockley; Dr. MacLagan, London; Dr. A. E. Garrod, London; Mr. W. Mathews, Clifton; Dr. Mowat, Stamford-hill; Mr. Stanmore Bishop, Manchester; Mr. Owey, London; Mr. T. L. Morgan, Clydach Vale; Dr. Wolfe, Glasgow; Dr. T. W. Jenkins, Whifflet; Dr. Scott Watson, London; Mr. W. Philipson, Newcastle-on-Tyne; Dr. Hugh Woods, Highgate; Mr. E. A. Thompson, Kirkham; Messrs. Leveson and Sons, London; Mr. W. Moore, Stourport; Messrs. Breitkopf and Härtel, Leipzig; Dr. T. Robinson, London; Messrs. Lippincott and Co., Philadelphia; Mr. E. T. Gaitakell, Sydenham; Messrs. Griffin and Co., London; Dr. J. O. Sinclair, Edinburgh; Messrs. Kelly and Co., London; Mr. C. S. Jeaffreson, Newcastle-on-Tyne; Messrs. May and Co., Piccadilly; Mr. A. Whyte, Glasgow; Messrs. Wishart and Co., Edinburgh; Dr. Mules, Bowdon; Mr. R. Harrison, Liverpool; Mr. T. R. Endean, Locarno; Mr. Weaver, Southport; Mr. G. Smith,

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